

MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES


OPSC/OFFICE OF
THE SECRETARY

2002 NOV -8 P 1:41

SUBJECT: Accredited National Standard on Performance and Installation of Gas-Burning Appliances and Related Accessories, Z21/83

PLACE: Sheraton Conquistador Hotel, Tucson, AZ

MEETING DATE: April 18, 2002

LOG ENTRY SOURCE: Donald W. Switzer 

ENTRY DATE: November 4, 2002

COMMISSION ATTENDEES:



Donald W. Switzer

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NON-COMMISSION ATTENDEES: See attached attendee list

MEETING SUMMARY

The ANSI Z21/83 Committee sets performance standards for gas-burning appliances and their installation. Membership consists of experts in gas appliance design and natural and LP-gas fuel distribution, government agencies, and consumer representatives. The official minutes of the meeting are attached and accurately reflect actions and discussions at the meeting.


CPSC 6 (5) Cleared 11-8-02
☒ No Mfrs/PrvtLblrs or
Products Identified
Excepted by 

Minutes to the Meeting
of
ACCREDITED STANDARDS COMMITTEE Z21/83 ON
PERFORMANCE AND INSTALLATION OF
GAS-BURNING APPLIANCES AND RELATED ACCESSORIES
and
CSA TECHNICAL COMMITTEE ON
ON GAS APPLIANCES AND RELATED ACCESSORIES

Held at

Sheraton El Conquistador
10000 North Oracle Road
Tucson, AZ 85737

April 18, 2002

The meeting was called to order by the Z21/83 Committee Chairman at 8:35 a.m., Mountain Time, Thursday, April 18, 2002. The following were in attendance during the course of the meeting:

Z21/83 Committee Chairman: Daryl L. Hosler
Z21/83 Committee Vice Chairman: James M. Jones
Z21/83 Committee Administrative Secretary: Allen J. Callahan (Non-Voting)

CSA Technical Committee Chairman: John Paisley
CSA Technical Committee Vice Chairman: John Marshall
CSA Technical Committee Administrative Secretary: Senka Krsikapa (Non-Voting)

Z21/83 COMMITTEE MEMBERS PRESENT:

<u>Member</u>	<u>Representative</u>
American Association of Family and Consumer Sciences	Frances Gailey
American Boiler Manufacturers Association	Dan Christenson
American Gas Association	Edward J. Angelone Martin P. Petchul Matthew W. Wilber

Z21/83 COMMITTEE MEMBERS PRESENT
(continued):

Member

Representative

American Public Gas Association

Bob S. Cave

Association of Home Appliance Manufacturers

Issac Sargunam

Canadian Gas Association

James M. Jones

Gas Appliance Manufacturers Association, Inc.

Charles W. Adams
Paul E. Beach
Daniel J. Canclini
David Christensen
Norman E. Mattson
James Mullen
Gary J. Potter
Neil Rolph
Terrence Slaby

Individual Member

R. Michael Martin

International Association of Plumbing and
Mechanical Officials

Jerome O. Hendrickson

National Electrical Manufacturers Association

John T. Adams

National Fire Protection Association

Theodore C. Lemoff

National Propane Gas Association

Bruce J. Swiecicki

Naval Facilities Engineering Command,
U.S. Department of the Navy

Thomas J. Harris

Southern California Gas Company

Daryl L. Hosler

Underwriters Laboratories, Inc.

Daniel P. Restelli

U.S. Consumer Product Safety Commission

Donald W. Switzer (Liaison without Vote)

U.S. Department of Energy (U.S. DOE)

Cyrus Nasser

CSA TECHNICAL COMMITTEE MEMBERS PRESENT:

Member or Representative

Member Representing

Martin Binet, Gaz Metropolitan Inc.

Joseph Boros, Rheem Manufacturing Company

Zenon Fraczkowski, TSSA

Raouf Greiss, Department of National Defence

Celia Gibbs, Consumers' Association of Canada

Daryl L. Hosler, Southern California Gas Company

James M. Jones, JM Jones Consulting Services

Ivo Svorinic, SES/B.C.

Representing Susana Katz

John Marshall, Enbridge Consumers Gas

John Paisley, GSW Water Heating Company

Blake E. Alberts, SaskPower

Representing Gordon L. Williams

ADMINISTRATIVE STAFF (Non-Voting):

Allen J. Callahan, Z21/83 Committee Administrative Secretary

Senka Krsikapa, CSA Technical Committee Administrative Secretary

Jennifer S. Henderson

GUESTS:

Len Bardsley, CSA International

Ken Bernhardt, Capteur Sensors

Jack Goldman, Hearth, Patio & Barbecue Association

Spencer Grieco, CSA America

George Gruss, CSA International

William Harrigill, Rheem Manufacturing Company

Robert Hemphill, Gas Technology Institute

Jeff Kincer, Henny Penny

Jack Langmead, Consultant

Frank Myers, PVI Industries, LLC.

John Overall, Union Gas

James Ranfone, American Gas Association

Frank A. Stanonik, Gas Appliance Manufacturers Association

Drew Smith, A.O. Smith Water Products

Gary Thibeault, Association of Home Appliance Manufacturers

Raymond Thurton, CSA International

Glenn Tubrett, CSA International

Z21/83 COMMITTEE MEMBERS ABSENT:

Member

Air Conditioning Contractors of America (ACCA)

American Gas Association (A.G.A.)

Building Officials & Code Administrators
International, Inc. (BOCA)

Gas Appliance Manufacturers Association
(GAMA)

General Services Administration (GSA)

Industrial Heating Equipment Association

International Association of Plumbing-Heating-
Cooling Contractors (PHCC)

National Institute of Standards and Technology,
U.S. Department of Commerce (NIST)

Southern Building Code Congress (SBCC)

U.S. Department of Health and Human Services
(U.S. H&HS)

U.S. Department of Housing and Urban
Development (U.S. HUD)

Representative

Michael Honeycutt (Liaison without Vote)

John Beck
Ronnie Ray Frazier
Robert A. Hauserman
Jack D. Rea

Gregg A. Gress

Michael Eberlein

Bruce Geren

Doug Perry

John Schulte

Walter G. Leight

John Battles

Rudy Tatum (Liaison without Vote)

Victor Ferrante (Liaison without Vote)

CSA TECHNICAL COMMITTEE MEMBERS ABSENT:

Member

Ed Grzesik, Ministry of Energy, Science & Tech.

Don Jamieson, CFM Majestic Inc.

Susana Katz, Ministry of Municipal Affairs (Represented by Ivo Svorinic)

Gordon L. Williams, SaskPower (Represented by Blake E. Alberts)

INTRODUCTIONS

The Z21/83 Committee Chairman, Mr. Daryl L. Hosler, welcomed all in attendance and requested the Z21/83 and CSA Technical Committee members and guests to introduce themselves and their affiliations. The new CSA Technical Committee Chairman and Vice Chairmen were introduced: Mr. John Paisley as Chairman and Messrs. John Marshall and Gordon Williams as Vice Chairmen. Mr. Spencer Grieco, Vice President of CSA America Inc., spoke on behalf of Ms. Pat Keindel, President of the Canadian Standards Association, welcoming both Committees to this first joint meeting and indicated this meeting as a historic occasion and an opportunity to move forward.

The minutes of the April 11, 2001 meeting of Z21/83 Committee were unanimously approved.

The minutes of the April 18, 2001 meeting of CSA Technical Committee were unanimously approved.

Item 1. Memberships

Action Requested

The Committees were asked to review the membership lists of the Z21/83 Committee and the CSA Technical Committee for information only.

History

Membership lists for the Z21/83 Committee and the CSA Technical Committee were provided as an attachment to this item. New members of each Committee were provided or announced at the meeting, and the new members were welcomed to their first meeting.

Committee Action

The Committees accepted this item as information.

Item 2. Organizational Changes at Canadian Standards Association

Action Requested

The Committees were asked to view a presentation on the restructuring and re-branding of CSA.

Discussion

Mr. Glenn Tubrett made a presentation on the restructuring and re-branding of CSA. CSA International's Standards Division in Canada was re-branded as the Canadian Standards Association (CSA). He explained that the reason for the change is to create a stronger "firewall" between certification and standards. There is a global trend towards separation of management of

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Standards and C&T activities to lessen increased concern of potential conflicts between Standards and Certification. As a result, the Canadian Standards Association will be moving in 2002 to a new facility being built near the Toronto airport. He explained that the Certification Division will remain titled CSA International and the QMI Division will remain titled QMI. Corporate operations has been re-branded as CSA Group. The U.S. Standards Department operates as CSA America, Inc.

Mr. Tubrett stated that the structuring and re-branding does not change the process. CSA will continue to harmonize and develop standards that enhance public health and safety, improve quality of life, preserve the environment, and facilitate trade.

Committee Action

The Committees accepted this item as information.

**Item 3. CSA Technical Committee on Gas Appliances Budget and Staff Business Plans
(FY 2002/2003)**

Action Requested

The Committees were asked to review this item for information only.

History

CSA has rationalized the continued investment in the CSA Gas Program based on a price increase to the B149 code. With that extra revenue CSA has committed to supporting the gas program until March 31, 2003. In the meantime structure changes at CSA will lead to an examination of the funding of all programs at CSA. The CSA Technical Committee on Gas Appliances and Related Accessories will continue to operate under supervision of the CSA Strategic Steering Committee on the Gas Industry.

A list of standard projects proposed for action in the coming fiscal year was presented as an attachment to this item. This list was based on staff's estimates from November 2001 and does not present the current status of projects listed. The list has been reviewed and adopted by the CSA SSC on the Gas Industry and included in the final CSA Business Plan.

Committee Action

The Committees accepted this item as information.

Item 4. Z21/83 Program Operations

Action Requested

The Z21/83 Committee was asked to approve the recommended actions from the Chairman's Advisory Committee (CAC) under summary questions 1 through 7 of this item. The CSA Technical Committee was asked to approve changes affecting the joint subcommittee's procedures.

History

At its November 13, 2001 meeting, the Chairman's Advisory Committee (CAC) was asked to review an update on the status of the Z21/83 Committee operations and finalize recommendations to the Z21/83 Committee on the seven summary questions shown below.

Discussion

1. Should the subcommittees be renamed?

The Committees were informed that it was recommended by the Chairman's Advisory Committee (CAC) to change subcommittee and joint subcommittee to Technical Advisory Group (TAG) and joint TAG. It was questioned what this change will accomplish and what will happen to the standing Technical Working Groups (TWG). It was stated that the name change is to show that the subcommittee/TAG is no longer required to be balanced, and TAG more clearly indicates the groups are advisory to the balanced Committee.

It was further replied that standing TWGs would be eliminated. It was explained that technical work now being done by the standing TWGs would be assisted by ad hoc working groups or other interested trade association working groups. It was argued that a lot of work gets done at the TWG level. It was replied that some subcommittee/TAG's may need to increase the number of days for a meeting to make up for the loss of their TWG. It was reiterated that ad hoc working groups of the subcommittee/TAG could still be appointed, but would be disbanded once their assignment was complete. It was also mentioned that permission would have to be granted for an ad hoc working group to have staff support.

The Committees unanimously agreed to rename subcommittees and joint subcommittees to Technical Advisory Groups (TAG) and joint TAGs.

2. Should the subcommittees (renamed) remain voting bodies?

The Committees were informed that it was recommended by the CAC that the TAGs remain voting bodies without any change to current subcommittee voting procedures. It was commented that voting bodies should be balanced. It was also mentioned that CSA Canadian subcommittees do not vote. The Z21/83 Committee unanimously agreed to let the TAGs remain voting bodies. The CSA Technical Committee agreed to let the TAGs remain voting bodies with one abstention from Mr. Greiss.

3. **Should the subcommittees (renamed) rely more on industry associations for working group investigations/recommendations?**
4. **Should the procedures provide for "industry meetings"?**

The Committees agreed with the CAC position that no formal recommendation was necessary.

5. **Should the Committee incorporate and establish an executive committee?**
6. **Should the Committee obtain liability insurance?**

The Z21/83 Committee was informed that the CAC recommended the Z21/83 Committee seek incorporation in the state of Delaware, obtain liability insurance and form an Executive Committee to address operational matters of the Committee between annual meeting. A working group, formed by the CAC to discuss the structure and exact function of the Executive Committee, met on February 27-28, 2002 and recommended that the full committee comprise a Board of Directors and two new administrative subcommittees on budget and policy be established. Chairman Hosler stated that his company had agreed he could sign the incorporation papers as long as it is transferred to an Executive Committee or Board of Directors soon afterward. Copies of: 1) an application for incorporation; and (2) completed draft application form and a description of the insurance program were provided as reference.

The Z21/83 Committee agreed to incorporate in the state of Delaware, obtain liability insurance and, in the process, create an Executive Committee to form bylaws, etc. Mr. Lemoff abstained from voting.

7. **Should the Committee remain SDO?**

Attached to this item were excerpts from the ANSI procedures for the development and coordination of American National Standards for the joint accreditation of the Committee and Secretariat. The joint accreditation relationship between the Z21/83 Committee and CSA America will be clarified during calendar year 2002. ANSI's procedural change awarding joint accreditation of the Committee and Secretariat was briefly discussed. It was stated that over the next year a small working group would work directly with CSA America to define the co-SDO relationship between the Z21/83 Committee and CSA America. It was stated that the relationship, once defined, may result in changes to the procedures and the Standards Secretariat Services Agreement (see Item 6) for consideration at next year's meeting. No formal action was considered necessary at this time.

Committee Action

The Z21/83 Committee agreed to incorporate in the state of Delaware, obtain liability insurance and, in the process, create an Executive Committee. Chairman Hosler is forming an ad hoc working group to prepare proposals on the role(s) of the Executive Committee for Z21/83 Committee consideration.

Item 5. Z21/83 Program Work Plan and Funding

Action Requested

The Z21/83 Committee was asked to approve the Work Plan, and recommend approaches for addressing a potential funding shortfall. The CSA Technical Committee was asked to accept this item for information.

History

Since April 2000, the Z21/83 Committee and the Chairman's Advisory Committee (CAC) have had under consideration the long term funding and operation of the Z21/83 standards program. The matters of funding and work planning are addressed herein.

Work Plan

A copy of the Work Plan for fiscal year April 2002 through March 2003 prepared by CSA America, Inc was provided as an attachment to this item. As reported last year, the Plan distinguishes by subcommittee areas of supervision the projected activity for each standard or new standard. Each standard area of activity is further divided into specific work tasks, e.g., meetings, meeting agendas, minutes, review & comment texts, Z21/83 Committee, ANSI, and publications' tasks. Associated with each activity or task are the number of person-hours required to complete the work, and the total hours projected for each standard or project area. The Work Plan provides the foundation for associating costs for administering the Z21/83 program for FY 2002/03.

Funding

Efforts to identify replacement funding over the past two years had been extensive. A number of coordinated activities and investigations on the parts of various interests, task groups and trade groups working together and independently within their organizations, have resulted in a cooperative arrangement to provide ongoing funding for the program. Consistent with the one-year 2002/03 Work Plan, funding contributions equaling approximately \$445,000 had been identified for this fiscal year. Contributions are based to a large extent on the Work Plan but also other independent factors consistent with available resources. Funding organizations include the Gas Appliance Manufacturers Association (GAMA), the Association of Home Appliance Manufacturers (AHAM), the Hearth, Patio & Barbecue Association (HPBA), the National Propane Gas Association (NPGA) as a continuing contributor, the North American Association of Food Equipment Manufacturers (NAFEM), and CSA including sales revenues and additional funding contributions.

The contributors, or stakeholders, have committed to meeting the budgetary needs for the operation of the Z21/83 program this year. Each year the stakeholders and the Committee as a whole will be asked to review and approve the annual work plans that CSA America, Inc. will routinely develop. Additionally, CSA America will continue to work with the other stakeholders and the Committee to identify additional funding resources where there are interests in the program. This will be an ongoing and important new role for the Committee and the Secretariat.

The projected costs for the next year are approximately \$690,000. Anticipated sales will offset the costs by approximately \$246,000. This includes \$50,000 each in projected new sales to manufacturers and subcommittee members, as discussed by the Committee and recommended by the CAC. However, recently some questions had been raised with regard to charging subcommittee members for standards. It was agreed from the onset that Z21/83 Committee members would continue to receive complimentary standards.

Discussion

It was reported that the CAC reviewed the Plan and recommended that the Z21/83 Committee accept it as presented. It was stated by staff that, at the CAC's request, a total cost line would be added to the work plan.

It was reported that the \$50,000 shortfall had also been discussed by the CAC. Chairman Hosler explained that up until this February, the budget was based on charging subcommittee members for standards. In February, the CAC working group recommended that subcommittee members not be charged for initial copies of standards under their area of activity. However, the funding was already firm and there was no provision for the \$50,000 shortfall. He explained that it was generally agreed by the CAC that it was unfair to charge subcommittee members for standards when they already volunteer their time.

He informed the Committee that CSA America had generously agreed to pay the \$50,000 shortfall as long as the stakeholders agreed to ask for this extra money in next year's budget and the stakeholders had all agreed. It was mentioned that raising the price of standards \$1.00 each would take care of the \$50,000 shortfall. It was replied that prices of standards were already raised 40-50 percent, so that is not an option to pursue right now.

Committee Action

The Z21/83 Committee approved the work plan as presented.

Item 6. Standards Secretariat Services Agreement

Action Requested

The Z21/83 Committee was asked to approve a draft Standards Secretariat Services Agreement between the Committee and CSA America. The CSA Technical Committee was asked to accept this item for information.

History

At its November 13, 2001 meeting, the Chairman's Advisory Committee (CAC) considered a draft five-year agreement between the Z21/83 Committee and CSA America as secretariat.

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The CAC formed a small working group to review the draft service agreement, consisting of Messrs. Goldman, Thibeault, Stanonik and Callahan. It was agreed that in light of ANSI's action to jointly accredit the committees and their secretariats as co-SDO's under revised ANSI procedures over the next year, that the Z21/83 Committee-CSA America Inc. agreement should be for one year correlating with the time frame proposed by ANSI to allow the parties to come into agreement with ANSI procedures.

A copy of the revised agreement was provided as an attachment to this item.

Discussion

It was stated that the Committee was being asked to approve this agreement, but it would not be signed until the incorporation of the Committee is complete. The Committee was informed of the modifications proposed by the CAC adding "Interim" to the title and changing the term under section 12 from "1 year" to "ending April 30, 2003".

Committee Action

The Z21/83 Committee approved the one-year Standards Secretariat Services Agreement for signing following its incorporation. Mr. Lemoff abstained from voting. The CSA Technical Committee accepted this item as information.

Item 7. CSA America's 2001 ANSI Audit

Action Requested

The Committees were asked to review this item for information only.

History

The American National Standards Institute (ANSI) audits accredited standards developers every five years. Such an audit was conducted at CSA America, Inc. the week of October 22-26, 2001.

Eight Z21 and Z83 standards and addenda were designated for audit. CSA America provided all documentation pertaining to these standards for review. The information provided consisted of meeting announcements, membership lists, agendas, minutes, review and comment texts, Z21/83 letter ballots and summaries, ANSI PINS forms, ANSI BSR-8 Public Review Forms, ANSI BSR-9 Formal Submittal Forms and all appeal information.

The audit was followed by a verbal report and a formal written report on January 17, 2002. The audit report had been favorable. CSA America provided a written response to ANSI.

The Executive Standard Council (ExSC) was reviewing the audit documentation and CSA America's response. The ExSC may decide to: close the audit, thereby reaffirming ANSI accredited status; keep the audit open until such time as it deems appropriate to close the audit;

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require a special audit; suspend the accreditation; or withdraw the accreditation. CSA America will be notified of the ExSC decision by early June 2002.

The Committees were provided with a written summary of the audit results and CSA America's responses for information.

Discussion

It was stated that CSA America has done a great job administering the program and maintaining records for the Committee and making this audit go smoothly.

It was mentioned that ANSI's decision on the 1/3 rule (no more than 1/3 membership of any one interest group on the Committee) may result in changes to the procedures. Currently, the Z21/83 procedures, approved by ANSI, require the "no one classification shall have a majority". It was mentioned that the only interest group that would currently be in violation of the 1/3 rule is General Interest (GI). It was stated that two new interest categories would be considered under Item 8. One is to add a testing agency category. The other adds a category for "government" and would further divide the broad interests in the GI category.

Committee Action

The Committees accepted this item as information.

Item 8. Proposed Revisions to the Z21/83 Committee Procedures

Action Requested

The Z21/83 Committee was asked to approve proposed revisions to the Z21/83 Committee Procedures and any recommendations from the Chairman's Advisory Committee (CAC). The CSA Technical Committee was asked to review and approve proposed revisions pertinent to joint TAG procedures.

Discussion

The Committees were provided with a copy of the Z21/83 Committee's operating procedures outlining the proposed revisions resulting from a variety of Committee issues. It was mentioned that changes resulting from the proposed incorporation of the Z21/83 Committee would be addressed at a later time in conjunction with the incorporation of the Committee.

The Committees were informed that the CAC recommended the remainder of the proposed revisions to the Z21/83 Committee procedures, as editorially revised at its meeting. A motion was made and seconded from the Z21/83 Committee to approve the proposed revisions as recommended by the CAC. It was questioned which members would fit into the new "government" interest category. It was replied that government bodies would fit into this interest category, such as the NAVY, U.S. DOE, HUD and H&HS. It was agreed to add "agencies" after government to make it clearer.

It was then questioned how non-federal government agencies or enforcing agencies, such as BOCA and SBCC, would be classified. It was stated that these are currently classified under general interest. The motion was amended to add another category for "regulatory/code authority". It was also agreed to add definitions for the interest categories as an Appendix to the procedures similar to current Appendix A which defines the subcommittee's interest categories. Staff agreed to draft interest category definitions for future Committee consideration. It was agreed to add "regulatory/code authority" as an additional interest category in the procedures. Mr. Charles Adams did not approve the additional category stating, "I believe that a category in addition to 'government' merely adds unneeded complexity to the matter".

Committee Action

The Z21/83 Committee unanimously approved the proposed revisions to its operating procedures as shown in Appendix A. The CSA Technical Committee approved proposed revisions effecting joint TAG operating procedures.

Item 9. Proposed Cost/Benefit Analysis Statement

Action Requested

The Z21/83 Committee was asked to approve proposed revisions to its operating procedures regarding Committee consideration of cost/benefit analysis and any recommendation from the Chairman's Advisory Committee (CAC). The CSA Technical Committee was asked to accept this item for information because as proposed it did not pertain to joint TAG operation.

History

At its October 19, 2000 meeting, the Chairman's Advisory Committee (CAC) considered a request from Mr. Bruce Swiecicki, National Propane Gas Association, to "permit the Committee and its subcommittees to consider and discuss safety or technical issues related to the development of gas appliance standards, and their perceived cost and/or benefit to society at large."

It was commented that a dollar value on cost per avoided injury or death should not be part of the development of voluntary standards, such as those produced and maintained by the Z21/83 Committee. The subcommittees have always been told not to discuss cost relative to the standards. It was also remarked that the subcommittees historically have not discussed cost, but at the same time the procedures do not prohibit such discussion. It was further commented that cost/benefit analysis can be done in very different ways and the Committee would have to take this into consideration. There would be a lot of financial issues involved in adding cost/benefit analysis to the procedures. It was stated that the U.S. Consumer Product Safety Commission has been very pleased to be able to say that the Z21/83 Committee does not discuss cost with safety issues. It was believed adding this revision to the procedures could reduce the integrity of the standards program.

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At the request of the CAC, Messrs. Allen Callahan, CSA America, and Frank Stanonik, GAMA, drafted a policy statement against the Z21/83 Committee allowing cost/benefit analysis. The draft policy was considered by the CAC at its April 10, 2001 and November 13, 2001 meetings. Consideration was given to allowing some broad discussion by prohibiting someone from saying e.g., "this will raise the cost of..."

A working group of the CAC considered this matter at its February 27-28, 2002 meeting and developed proposed revisions to the statement as shown below:

~~"11.6 Cost/Benefit Analysis: It is the policy of the Z21/83 Committee may consider information related to cost/benefit analysis in the development of its standards and standard revisions, that it and its subcommittees It's Technical Advisory Groups (TAG), and any working groups or task forces operating under the Z21/83 program, do not discuss or conduct cost/benefit analysis during the development of standards and standards revisions. The role of the Committee and its program is to develop safety and performance standards and it is considered inappropriate to associate safety and performance with cost."~~

The above, revised statement was considered by the CAC at its April 17, 2002 meeting.

Discussion

Mr. Swiecicki distributed two handouts to the members and guests. The first was a letter to the Z21/83 Committee members stating (1) the major objections to cost/benefit analysis vocalized by the Committee to-date; (2) Mr. Swiecicki's research on other SDO's policies; (3) NPGA's legal review of the proposed policy above; and (4) the following proposed statement for consideration by the Committee:

"Cost/Benefit Analysis: The Z21/83 Committee and its subcommittees and Technical Advisory Groups (TAG) forces may consider information related to cost/benefit analysis in the development of its standards and standard revisions. Any proposal or comment to a standard, submitted in conjunction with the normal procedures for developing standards, which includes as a part of its substantiation an analysis of the costs to implement a particular change to the standard and the perceived benefits to society, shall be treated by the Committee and its subgroups no differently than would any other proposal or comment."

The second handout consisted of a November 5, 1999 letter from Mr. Scott M. Estill, attorney and counselor at law, to Mr. Robert Blackwell, Independent Propane Company, regarding the legal ramifications of consideration of cost/benefit analysis in light of the Sherman Antitrust Act.

The Committees were informed that the CAC recommended the Z21/83 Committee adopt the cost/benefit analysis statement as proposed by the working group allowing the Z21/83 Committee to consider cost/benefit analysis. However, if approved, the CAC recommended that the proposal be held in abeyance until the Secretariat develops internal procedures on how cost/benefit analysis would be handled. It was clarified that this statement only regards the consideration of third party cost/benefit analysis, and not the generation of analysis by the Z21/83 Committee or its TAGs.

A motion was made and seconded to approve the cost/benefit analysis as recommended by the CAC. It was stated that there are concerns about adding this statement without any direction on how staff should handle a cost/benefit analysis if it is submitted at the TAG level.

The motion was amended and seconded to adopt the statement, but hold from submittal to ANSI until staff procedures are drafted and rules written on how cost/benefit analysis would be handled and what would be acceptable. It was stated that there is no definition of cost/benefit analysis and there should be rules on how to handle them. Mr. Swiecicki was against holding the proposed change. Some members commented that they were strongly opposed, that adding cost/benefit analysis to the procedures is a serious departure, and safety should not be considered in light of cost. It was also commented that Z21/83 Committee decisions are less likely to be influenced one way or another by a cost/benefit analysis because they can be so subjective. It was stated that cost/benefit analysis can be subjective, but if they are not considered, an opportunity for someone to present their viewpoint may be lost.

Committee Actions

A vote was taken first on the amended motion. The motion failed by a vote of 9 approve, 15 disapprove and 1 abstention.

A vote was then taken on the original motion to adopt the proposal as recommended by the working group to allow cost/benefit analysis to be considered by the Committee. This motion also failed by a vote of 10 approve, 15 disapprove and 0 abstentions.

The CSA Technical Committee accepted this item as information.

Item 10. Status of Alternate Members on CSA Committees

Action Requested

The CSA Technical Committee was asked to review and clarify a specific need to continue to operate with formally appointed alternate members on the CSA Technical Committee. The Z21/83 Committee was asked to accept this item for information.

History

In 2000, a transition from (Interim CSA) Standards Steering Committee to CSA Technical Committee on Gas Appliances and Related Accessories was finalized. The objective was to have a CSA Technical Committee in full compliance with CSA Directive and Guidelines governing standardization.

The typical structure of a CSA Technical Committee includes a chairman, one or two vice-chairmen, voting and associate members. Voting members are typically from three to four different interest categories. Associate members do not have a vote and usually contribute their specific expertise to committee work. The CSA Technical Committee on Gas Appliances still

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includes standing "alternate" members who can vote at a meeting in place of a voting member in that member's absence. However, only official voting members can be nominated for Chair or Vice-Chair positions.

There is a need to review and clarify a specific need of this committee to continue to operate with alternate members, or consider adopting a standard CSA Technical Committee membership structure.

Discussion

It was commented that supporting the CSA committee structure would not change the current operation of the committee and that all other CSA technical committees are operating without standing alternates. Some of the identified advantages of the CSA committee structure for CSA staff included no potential conflicts in voting on letter ballots and clear understanding of the membership matrix and voting status. It was also commented that an advantage for voting members could be the additional flexibility in delegating voting privileges to other individuals from their organizations if more appropriate, or needed. One disadvantage was the fact that copies of ballots or meeting material would be distributed to voting members only, and their responsibility would be to forward it, if necessary, to their alternate for consideration. It was also clarified that only the voting member could be nominated for chair and/or vice chair position. It was questioned if standing alternates were eliminated, how much notice would need to be given to send a representative to a meeting. It was replied that ideally staff and the chair need to be informed ahead of the meeting, however a representative could attend a meeting with a signed letter from the voting member without an advanced notice.

It was stated that the main problem with standing alternates is not representation at meetings, but voting on letter ballots when both the member and the alternate vote on the same ballot. It was stated that current alternate members could be designated as associate members and, as such, would still get copies of the committee material.

A motion was made and seconded to eliminate standing alternates from the CSA Technical Committee membership. The motion was approved by a vote of 9 approve, 2 disapprove and 0 abstentions. Messrs. Lemoff and Alberts disapproved the motion.

Committee Action

The CSA Technical Committee agreed to eliminate standing alternates from the CSA Technical Committee membership and designate them as associate members. The Z21/83 Committee accepted this item as information.

Item 11. Proposed Revisions to the American National Standard/CSA Standard for Gas Water Heaters, Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less

Action Requested

The Committees were asked to approve proposed revisions to American National Standard for Gas Water Heaters, Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less, Z21.10.1•CSA 4.1, and accompanying rationale statement.

History

By letter ballot dated November 5, 2001, the joint water heater subcommittee adopted proposed revisions to the harmonized American National Standard/ CSA Standard for Gas Water Heaters, Volume I, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less, Z21.10.1•CSA 4.1, for distribution for review and comment. The proposed revisions to incorporate a lint, dust and oil test protocol in the volume I water heater standard were distributed for review and comment during November 2001.

At its December 12, 2001 meeting, the joint water heater subcommittee reviewed comments received on the proposed coverage as a result of the November 2001 distribution for review and comment. The joint subcommittee reconsidered the proposed coverage through "Method of Test," Set-up paragraph "e" in light of comments received. The joint subcommittee referred the remainder of the proposed coverage to the lint, dust, and oil working group for review in light of the comments. The subcommittee had noted that the actions taken by the joint subcommittee at its December 2001 meeting on other comments were to be retained. The joint subcommittee indicated its intent that the proposed lint, dust, and oil test was to be presented to the parent committees for approval at their April 2002 meeting.

The comments received and subcommittee actions at the December 12, 2001 meeting, and the proposed lint, dust and oil test protocol as modified by joint subcommittee were presented to the working group for review at its January 29, 2002 meeting. The working group recommended modifications to clarify the room is at ambient temperature at the beginning of the test. The working group modifications removed redundancies, clarified wording, and further clarified the relational configuration of equipment in the room.

By letter ballot dated February 1, 2002, the working group recommendations were recommended by the joint water heater subcommittee to the Z21/83 Committee and the CSA Technical Committee for approval.

Proposed revisions to the water heater standard, Z21.10.1 • CSA 4.1, are to:

- add a requirement that water heaters (except direct vent water heaters, water heaters for installation in recreational vehicles, and water heaters for outdoor installation) comply with a test to evaluate the resistance to accumulate lint, dust and oil

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If approved by the Committees, ANSI and the IGAC, these revisions will be issued as the first addenda to the second edition of ANSI Z21.10.1-2001 • CSA 4.1-2001.

Discussion

The result of the joint water heater subcommittee's February 1, 2002 letter ballot to approve the proposed revisions for recommendation to the parent committees was provided at the meeting. The joint subcommittee's vote was 19 approve, 2 disapprove, 0 abstentions and 0 ballots not returned. Reasons for the two joint subcommittee members disapproving votes were read at the Z21/83 Committee meeting for information.

Mr. Rauof Greiss, CSA Technical Committee member representing Canada's Department of National Defence, made the following comments at the meeting which were referred to the joint water heater TAG for consideration:

Section: Page A-4&5, LDO Rate and Composition, Oil Sequence

Comment(s): Burner cycles are cycles 11 and 12 along 4 hours each while all other 1 hour each? Needs to clarify. Also, oil injection sequence is each sequence one-hour or 30 minutes, need to declare.

Section: Page A-5, first paragraph after LDO Rate and Composition table

Comment(s): Item (a) should add: "in which case it is considered not to have passed the test".

Section: Page 19&20, Figures

Comment(s): Appreciate diagram of ventilation system with flow direction to help illustrate narrative: Combustion air openings are usually considered to admit air, assumes from filtration system not to, page A-20 shows intake to blower from outside.

It was mentioned that there are some organizations concerned with the proposed LDO test. It was also mentioned that since the blockage from lint, dust and oil is associated with flame arrestor technology, then only water heaters utilizing flame arrestor technology should be subject to the proposed LDO test. It was stated that this option was discussed by the joint subcommittee, but was not approved. It was pointed out that lint, dust and oil can also affect other sensors, and flame arrestor technology is not the only one to which the proposed LDO test should apply.

It was questioned why testing could not be done easier by simply restricting airflow, and why dust flow was chosen which seems to be a more difficult test. It was explained that because of water heater design differences the test needs to be conducted using lint, dust and oil instead of just measuring airflow. For example, some water heater designs clean themselves between cycles, as where others do not.

Committee Action

The Z21/83 Committee members present at the meeting approved the proposed revisions to Z21.10.1 • CSA 4.1 by a vote of 24 approve, 2 disapprove and 0 abstentions. The CSA Technical Committee members present at the meeting approved the proposed revisions, unanimously.

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It was generally agreed by both Committees to editorially add "water" to the end of the third sentence in the last paragraph of page A-3.

Following are the reasons for the two negative votes from the Z21/83 Committee:

Bruce Swiecicki, representing NPGA

"My negative vote on Item 11 is based on the following concerns: There appears to be no requirement for the flammable vapor-resistant water heater to be tested to demonstrate that it will not ignite flammable vapors when the flame arrestor is filled with lint. Shouldn't the safety device be expected to perform under this condition, especially if the unit complies with 2.36 a. of the proposed acceptance criteria and does not shut down?"

Robert Cave, representing APGA

"The proposed revision to Z21.10.1 should not be approved. It is my feeling that the new lint, dust and oil test should be applied only to flammable vapor resistant water heaters. More field information and study would be helpful before the new test is implemented. Unfortunately, once this test is approved it could also easily be added to other natural gas equipment and as I mentioned before an additional study should be completed."

Item 12. Z21/83 Guidelines for Formal Presentations to Subcommittees

Action Requested

The Z21/83 Committee was asked to approve recommended revisions to the Z21/83 Committee's *Guidelines for Formal Presentations to Subcommittees*. The CSA Technical Committee was also asked to approve revisions to the Z21/83 Committee's *Guidelines for Formal Presentations to Subcommittees* since they affect joint TAG operations.

History

The *Guidelines for Formal Presentations to Subcommittees* were developed by the former Chairman of the Z21 Committee and the Z21 Chairman's Advisory Committee in 1993-1994. The guidelines are intended to provide subcommittee/TAG chairmen guidance on how to handle requests for presentations at subcommittee/TAG meetings, the use of recording devices at meetings and openness of meetings.

The Z83 and Z21 Committees unanimously approved the guidelines at their respective October 1994 and April 1995 meetings.

At its November 13, 2001 meeting, the CAC recommended the revisions to the guidelines for approval by the Z21/83 Committee as shown in Appendix B.

Committee Action

The Z21/83 Committee and the CSA Technical Committee unanimously approved the *Guidelines for Formal Presentations to Subcommittees* as shown in Appendix B.

Item 13. Antitrust Compliance Guidelines

Action Requested

The Z21/83 Committee was asked to consider antitrust compliance guidelines for Z21/83 Committee, TAG and joint TAG meetings. The CSA Technical Committee was asked to consider antitrust compliance guidelines for joint TAG meetings.

History

At its November 13, 2001 meeting, the CAC agreed to look into anti-trust guidelines for Z21/83 Committee and subcommittee meetings. A copy of the American Gas Association's (A.G.A.) Antitrust Compliance Guidelines was attached to this item as an example.

Discussion

The Committees were informed that the CAC recommended the Z21/83 Committee ask CSA staff to utilize the A.G.A. guidelines provided as a guide to draft anti-trust guidelines for consideration by the Z21/83 Committee.

It was commented that having guidelines would be beneficial in that they would describe to participants how they are expected to behave. It was also mentioned that some legal council should be involved in drafting the guidelines.

Committee Action

A motion was made, seconded and unanimously approved by the Committees to ask staff to draft anti-trust guidelines for their consideration.

Item 14. Z21/83 Committee Memberships Requests

Action Requested

The Z21/83 Committee was asked to approve two requests for new membership on the Z21/83 Committee. The CSA Technical Committee was asked to accept this item for information.

History

The Committees were provided with resumes for the following organizations requesting membership on the Z21/83 Committee:

- Hearth, Patio & Barbecue Association (HPBA) to be represented by Mr. Jack Goldman, HPBA
- North American Association of Food Equipment Manufacturers (NAFEM) to be represented by Mr. Jeff Kincer, Henny Penny Corporation

Discussion

The Committees were informed that the CAC recommended approval of the new members to the Z21/83 Committee. It was stated that NAFEM's membership would be effective immediately following adjournment of the meeting. It was also stated that at its request, HPBA's membership would be held in abeyance until the Committee's incorporation is finalized.

It was questioned if size was going to be a problem. It was replied that the Z21/83 Committee wants qualified people who participate actively. It was also questioned if approving two new manufacturers would put that category over the 1/3 rule which ANSI is deliberating (see Item 7). It was replied that the manufacturer category would meet this membership criteria.

Committee Action

The Z21/83 Committee unanimously approved NAFEM and HPBA as new manufacturer interest members of the Accredited Standards Committee Z21/83. The CSA Technical Committee accepted this item as information.

Item 15. Potential Conflicts Between CSA B149 Code and the Product Standards

Action Requested

The Committees were asked to consider advising/directing joint TAGs not to develop/propose provisions that are, or will be, in direct conflict with CSA B149 Code.

History

It was stated there were several examples in the past where joint TAGs recommended revisions to harmonized standards that appeared to be in conflict with CSA B149 Code. This resulted in the rejection of proposed revisions/new standards in Canada and delayed publication of new harmonized standards and their revisions.

The most recent example included proposed revisions to the standard for Low Intensity Infrared Heaters, Z83.20•CSA 2.34.

Discussion

It was suggested that joint TAGs review the B149 code when making revisions to harmonized standards. It was clarified that the joint TAG's intention was not to be in conflict with the code. It was further commented that there might be a lack of knowledge regarding the code's changes and requirements the joint TAG's memberships. It was mentioned that this is not just a B149 issue because conflicts also arise with other codes in the U.S. However, it was clarified that conflicts between codes and standards in Canada have a greater impact because the code is a legislative document and as such takes precedence in Canada. It was also mentioned that sometimes conflicts between standards and codes may result in a change in the code.

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It was commented that conflicts are being caught and reported during CSA Technical Committee, or Interprovincial Gas Advisory Council (IGAC) voting and they have delayed the standard/revisions until a resolution can be found. It was stated that people who are very familiar with the code(s) receive review and comment (R&C) texts for all harmonized standards and should report conflicts to the TAGs at that early stage. It was suggested that the staff in charge of the B149 code inform the relevant TAGs of potential conflicts at an early stage so a resolution can be sought before the Committee and IGAC ballots are processed.

Committee Action

The Committees accepted this item as information and agreed that awareness of conflicts should be raised at the review and comment stage by members familiar with the B149 code or by the CSA staff managing the B149 code.

Item 16. Recommendations from the Working Group on Definitions for Manufactured Home, Mobile Home, Aftermarket and OEM

Action Requested

The Z21/83 Committee was asked to approve revised definitions for manufactured home and mobile home for inclusion in the applicable standards. The CSA Technical Committee was asked to accept this item for information because the proposed definitions only affected the U.S. portion of the harmonized standards and the Canadian definitions would remain unchanged.

History

During its April 15, 1999 meeting, the Z21/83 Committee asked that an ad hoc working group be established to determine definitions for the United States and Canada for manufactured home, mobile home, aftermarket, OEM and park trailer. This item was given to the Z21/CSA Joint Vented Gas-Fired Warm Air Heaters Technical Working Group (TWG) for recommendations.

At its April 13, 2000 meeting, the Z21/83 Committee was presented with the revised definitions recommended by the TWG, accepted by the joint subcommittee and approved by Z21/83 Committee for the vented heater standards. It was stated that "mobile home" is an out-of-date term that is no longer used in the U.S. A member replied that the term "mobile home" is used in Canada, so both references must remain. It was commented the U.S. Department for Housing and Urban Development (HUD) had deleted all reference to "mobile home". It was stated that the main difference between the terms is that a mobile home has an under-structure or carriage, and a manufactured home does not have such a suspension system. It was stated that the proposed definitions do not address these issues.

Messrs. D. Smith and T. Lemoff volunteered to review the definitions while taking into consideration definitions from other organizations. Mr. Glenn Tubrett volunteered to provide Canadian definitions.

A revised definition for Manufactured Home, which includes a subcategory for Mobile Home, was submitted by Mr. Smith for consideration by the Z21/83 Committee as shown below.

MANUFACTURED HOME – A structure, transportable in one or more sections, that is 8 body-ft (2.44 m) or more in width and 40 body-ft (12.2 m) or more in length in the traveling mode or, when erected on site, is 320 ft² (29.7 m²) or more.

- (1) Type I – A **modular, panelized or prefab** structured home built on a frame and designed to be used as a permanent dwelling.
- (2) Type II – A **mobile** home built on a permanent chassis with wheels and suspension so as to be readily movable as a unit or units (doublewide, etc.) whether or not installed on a permanent foundation.

Includes plumbing, heating, air-conditioning, and electrical systems contained therein for connection to the required utilities. Calculations used to determine the number of square feet in a structure will be based on a structure's exterior dimensions, measured at the largest horizontal projections when erected on site. These dimensions include all expandable rooms, cabinets, and other projections containing interior space, but do not include bay windows.

Discussion

It was stated that "mobile" and "manufactured" homes are not the same, but are still treated interchangeably. It was clarified that the proposed definition is only for the U.S. portion of the standards and the Canadian definition would remain the same. It was stated that U.S. definitions already exist for these terms in several places. It was pointed out that U.S. Department of Housing and Urban Development (HUD) standards on mobile/manufactured homes are in law. If there is an aftermarket problem, it can be dealt with in codes.

Committee Action

A motion was made and seconded for the Z21/83 Committee to approve the recommended definition for Manufactured Home. The motion failed by a vote of 12 approve, 8 disapprove and 2 abstentions.

The CSA Technical Committee accepted this item as information.

Item 17. Revise the Definitions Section in the Standards

Action Requested

The Committees were asked to add, "For the purpose of this standard, the following terms shall be defined as stated herein," at the beginning of the Definitions section in the standards.

History

At its December 4, 2001 meeting, the unvented heater subcommittee considered a comment from Mr. Gregg Gress, BOCA International, regarding potential confusion of terms used in the ICC codes when used differently in the standards. After reviewing this comment, the subcommittee recommended to the Z21/83 Committee and CSA Technical Committee that all product standards add a statement under the heading of the "Definitions" section that states "For the purpose of this standard, the following terms shall be defined as stated herein."

Discussion

The Committees were informed that the CAC concurred with the recommendation of the unvented heater subcommittee as a clarification of the standards.

Committee Action

A motion was made, seconded and unanimously approved by the Committees to add the proposed text to the Definition section of the standards as a clarification. Staff agreed to add the approved wording to the Z21 and Z83 standards as new editions are produced.

Item 18. Reference CSA C22.2 No. 0.15, Adhesive Labels

Action Requested

The Z21/83 Committee was asked to reference CSA C22.2 No. 0.15, Adhesive Labels, in the harmonized Z21/83-CSA gas appliance standards. No action was requested from the CSA Technical Committee because it had already approved the proposal at its April 18, 2001 meeting.

History

At its April 18, 2001 meeting, the CSA Technical Committee noted that IAS Requirement 4-88 on adhesive labels is an internal document that incorporates label requirements from the Z21 and Z83 standards. IAS 4-88 is not harmonized in Canada. CSA C22.2 No. 0.15 on adhesive labels is being used for electrical equipment in Canada but label manufacturers have to meet different requirements for gas products. Several large label manufacturers are supplying the same labels for gas and electric products and it was believed there was no reason for them to have to meet different standards and testing protocol since they have the same properties and characteristics.

The CSA Technical Committee on Gas Appliances agreed to adopt CSA C22.2 No. 0.15 as a reference standard in all harmonized gas standards and forward the matter to the Z21/83 Committee for its consideration as well.

At its November 2001 meeting, the CAC asked staff to research the equivalency of the IAS 4-88, CSA C22.2 No. 0.15 and UL's Marking and Labeling Systems Standard, UL 969.

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The three adhesive label standards would apply to the following marking materials as defined in the Z21/Z83-CSA gas standards:

Class IIA-3.	Permanent Plate	(attached by nonwater-soluble adhesive)
Class IIA-4.	Permanent Plate	(pressure sensitive metal foil)
Class IIIA-1.	Permanent Plate	(attached by nonwater-soluble adhesive)
Class IIIA-2	Permanent Label	(attached by nonwater-soluble adhesive)

A comparison of the "scopes" and "similarities/differences" of the three standards was provided with this item for reference.

Discussion

The Committees were informed that the CAC recommended the Z21/83 Committee approve the additional reference to the harmonized Z21/CSA and Z83/CSA standards.

Committee Action

The Z21/83 Committee concurred with the CSA Technical Committee. A motion was made, seconded and unanimously approved to add reference to CSA C22.2 No. 0.15, Adhesive Labels, in the harmonized Z21/CSA and Z83/CSA standards, to be distributed for review and comment.

Item 19. Leakage Testing of Direct Vent System Appliances

Action Requested

The Committees were asked to form an ad hoc working group to evaluate current leakage testing coverage for direct vent systems.

History

During its May 1998 meeting, the joint vented heater subcommittee was asked to review a letter from Dr. Samir Barudi, formerly with a manufacturing company and subsequently a consultant, requesting that the formula shown under section 2.32, Joints In Direct Vent Systems in the Vented Gas Fireplace standard, Z21.50/CSA 2.22, be reconsidered. The subcommittee asked its technical working group (TWG) to consider this request.

At its December 1999 meeting, the joint subcommittee was informed that the TWG wanted to expand the scope of its assignment. It was stated that the current test method was a static test. Appliances were passing the leakage test in a cold condition. This test proved that manufacturers can manufacture direct vent systems with tight joints. However, it was noticed that during operation in a warm state an appliance could develop leaks. The TWG proposed to expand the leakage test to include coverage for determining leakage during operation under a hot condition as well as under a cold.

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It was also noted that appliances are being manufactured with "slip joints." When an appliance is in operation, the joints can expand to provide a tight seal. However, when an appliance is cold a tight seal may not be achieved. The TWG requested that these type appliances also be considered. The joint subcommittee agreed to expand the scope of the TWG's assignment.

At its July 2001 meeting, the joint subcommittee agreed with its TWG that leakage testing of direct vent systems may be applicable to other appliances, and asked that the Z21/83 Committee and CSA Technical Committee form an ad hoc working group.

Discussion

Chairman Hosler stated that the CAC has been working on a project comparing combustion and leakage tests for direct vent appliances. He stated that the CAC decided to turn the leakage test portion of this project over to this working group, if formed.

Committee Action

A motion was made, seconded and unanimously approved to form an ad hoc working group of the Committees to evaluate leakage testing coverage for direct vent systems, which will recruit membership from effected groups. The ad hoc working group was asked to develop coverage to send directly to the appropriate TAGs. It was further agreed that Mr. David Christensen would be responsible for assigning a chairman to the working group from the vented heater TAG. This chairman will be responsible for corresponding with other TAGs for volunteers. Staff would help establish the group.

Item 20. Request from the Z21/CSA Joint Subcommittee for Gas-Fired Central Furnaces regarding Disconnected Vents and CO Sensors

Action Requested

The Committees were asked to review and provide direction to the joint central furnace subcommittee on a U.S. Consumer Product Safety Commission report on furnace combustion sensor test results, and consider forming an ad hoc working group to review the CPSC information.

History

At its December 13, 2001 meeting, Mr. Ron Jordan, CPSC, addressed the furnace subcommittee with information regarding the latest tests conducted by CPSC. Mr. Jordan stated that CPSC had conducted tests with two types of CO sensors, a mixed metal oxide sensor (range of 70 to 400 ppm) and a catalytic type sensor (range of 700 to 3000 ppm). Mr. Jordan had said that the sensors were tested in a 100 cubic foot environmental test chamber. Samples of CO from 70 to 3000 ppm were injected into the test chamber and the resultant voltage from the sensors was measured and recorded.

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A shutoff circuit was designed and connected to the sensors such that the voltage output of the sensors would initiate a shutoff device after exposure to CO. For the mixed metal oxide detector, a voltage corresponding to an exposure of 400 ppm was 600 millivolts, which was selected for the shutoff device and successful shutdown was accomplished in each case. For the catalytic type sensor, a voltage corresponding to an exposure of 400 ppm was 1.6 volts, which was selected for the shutoff device and successful shutdown was accomplished. It was commented that there may be other technologies in the marketplace which could shutdown a furnace if properly applied.

It was reported that the Gas Appliance Manufacturers Association's (GAMA) Furnace Engineering Committee (FEC) looked at the CPSC proposal in a broader sense. It was suggested that the information on the subject of disconnected vents and subsequent investigations by CPSC and others be provided to the Z21/83 Committee for consideration.

It was commented that the CSA CO alarm standard requires an expiration date for the CO sensor, and that it is difficult to achieve long term repeatable response from CO sensors. Responding to questions, it was stated that the mixed metal oxide sensor has a 5-year lifetime and the catalytic sensor has a 10-year lifetime.

It was commented that manufacturers of CO sensors are to provide information regarding the lifetime of sensors. A sensor manufacturer present at the December 2001 central furnace subcommittee meeting offered to make a presentation to the subcommittee or other appliance subcommittees upon request. It was commented that technology has leapfrogged beyond previous experience with CO sensors.

Mr. Daryl Hosler, Southern California Gas Company and Chairman of the Z21/83 Committee, commented that the activities of the subcommittee and Committee are a part of the voluntary standards process. Mr. Hosler commented that other appliance manufacturers may want a shutdown sensor included as a part of the control packages. Mr. Hosler said that he supported forwarding the information on the subject of disconnected vents, blocked vents and CO sensing to the Committees for consideration at their April 2002 meeting, for possible recommendation to the appliance subcommittees.

Mr. Jordan commented that CPSC wants to work with the subcommittee on this issue. CPSC and the subcommittee have the same goals.

The Z21/CSA Joint Subcommittee for Gas-Fired Central Furnaces asked that the parent Committees consider the CPSC report for direction, and to consider forming an ad hoc working group.

Discussion

Copies of a CPSC report on Furnace Combustion Sensor Test Results were provided to the Committees as an attachment to this item.

It was commented that CO technology has changed in that new technology is available and old technology has improved. Some automotive CO technology might now be ready for use in gas appliances. It was agreed that this subject applies to more than just furnaces. It was mentioned

that with all this new technology, there should be additional ways to reduce the amount of CO in houses. Mr. Donald Switzer, CPSC staff, indicated his support of the formation of a working group and agreed to work with this working group to provide any additional information needed, and/or make CPSC facilities available as needed.

Mr. Robert Hemphill, GTI, stated that GRI had helped with these kinds of research projects. GRI is now GTI. He stated that he feels this is an important and very broad reaching issue. He stated that GTI would like to work with industry to form specifications for these devices. He also stated that there should be a study on the impact this will have on the many standards it may effect.

Chairman Hosler stated that there is no funding for this project. He stated that if a working group is formed, we will have to find the funding. A working group would first need to formulate a business plan for funding for review by the SDOs. It was stated that since GRI funding ceased, most research projects have been funded by the stakeholders to form proposals for standards. Mr. Hemphill expressed some interest in GTI providing funding for this project.

It was stated that there is existing technology. If the sensor is to go on the appliance, we need to know the characteristics the devices need to meet for the life of the appliance in order to create enough trust to use it. Comment was made that maybe we need a standard for CO/CO₂ sensors on appliances. It was mentioned that the CO alarm standard in Canada has been through some of these issues in updating their standard, and their research may be of some use to this project. It was also mentioned that other influences beyond the Committee's control, such as installation, may be the cause of the disconnected vents identified by the CPSC.

It was mentioned that CPSC indicated in its report that it is only concerned with space heating appliances. Chairman Hosler stated that no assumptions should be made at this stage. A work plan should be created and then all the available options examined. Eventually, there may be a need to create a standard/benchmark for these devices.

Committee Action

A motion was made and seconded to assign a working group to investigate the availability and applicability of CO/combustion sensors to follow with a work plan to assess the impact on the furnace standard and possibly other gas appliances. The motion was amended to add the possibility of the working group creating a standard/benchmark for these devices, and that the working group should report annually to the Committees.

The Committees unanimously agreed to form a working group to investigate the availability and applicability of CO/combustion sensors and possibly create a standard/benchmark for these devices. Messrs. Fraczkowski (or another TSSA representative), Gruss, Hemphill, Petchul, Restelli, Stanonik (Chair), Svorinic, Swiecicki, Switzer (or another CPSC representative), Tubrett, and Wilber volunteered to participate on the working group. It was agreed that the working group's first assignment was to create a work plan that would identify funding needs.

Item 21. Potential Conflicts in Scopes of Z21.24, Z21.75 and LC1

Action Requested

The Committees were asked to consider a connector subcommittee concern over allowing the use of corrugated stainless steel tubing (CSST), ANSI LC1•CSA 6.26, directly to an appliance, and any recommendation from the Chairman's Advisory Committee (CAC).

History

By letter dated May 29, 2001, Mr. Richard Sekerchak, Dormont Manufacturing Company, requested that the Z21/CSA Joint Connector Subcommittee discuss the continued field use of CSST to connect to appliances instead of using a gas connector, and the need to modify the scope of LC1•CSA 6.26.

Dormont Manufacturing also submitted a request to the LC1 TAG/subcommittee to revise the scope of LC1•CSA 6.26. The proposal requested a revision to specify that CSST is to be terminated at the wall and not extended directly to gas utilization equipment with the rationale: *"The CSST product is not designed to meet the more stringent performance requirements of a gas connector as specified in ANSI Z21.24 • CGA 6.10 and Z21.69 • CSA 6.16. The specified performance for the connectors was established to account for the anticipated site environment and usage conditions."*

Mr. Sekerchak also requested that the following question be discussed by the joint connector subcommittee:

"If two sub-committees are in conflict (such as over scope or product applications as noted above), how is the conflict resolved?"

The connector subcommittee reviewed this request at its July 18, 2001 meeting. It was felt that a conflict in scope exists between not only Z21.24•CSA 6.10 and LC1, but also between proposed Z21.75•CSA 6.27 and LC1 because LC1 states that CSST can be used to connect directly to an outdoor stationary appliance. It was mentioned that LC1 is silent regarding indoor use, but specifically states its application for outdoor appliances. It was stated that CSST is being used to directly connect to non-movable indoor appliances such as water heaters and furnaces. It was argued that even non-movable appliances will eventually be replaced. It was further stated that CSST is not tested for reconnection nor do the markings require a consumer warning for reuse, unlike Z21.24•CSA 6.10 connectors which require both testing for reconnection and markings against reuse.

The connector subcommittee felt that CSST could be used to directly connect to the appliance if it was tested and listed to Z21.24•CSA 6.10. It was mentioned that connector standards have a longer history than CSST, resulting in more time being taken for in-depth markings, instructions and testing geared toward consumer safety.

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The joint connector subcommittee submitted a letter, dated April 4, 2002, to the Z21/83 Committee and the CSA Technical Committee requesting a review and resolution of the scopes between Z21.24•CSA 6.10, Z21.75•CSA 6.27 and LC1.

At its July 19, 2001 meeting, the joint CSST TAG/subcommittee reviewed Mr. Sekerchak's May 29, 2001 proposal to revise the scope of ANSI LC1•CSA 6.26. The LC1 TAG/subcommittee was advised of the action by the joint connector subcommittee to refer the matter to the Z21/83 Committee and the CSA Technical Committee. Comment was made that the connector subcommittee appears to continue to misinterpret the CSST standard. The LC1 TAG/subcommittee noted that it previously discussed this subject at its June 4, 1998 and July 13, 1999 meetings. The TAG/subcommittee also noted that the chairman of LC1 attended the July 14, 1999 connector subcommittee meeting to report on the discussions and actions of the LC1 TAG/subcommittee. The CSST TAG/subcommittee noted that in the industry, the piping system is defined as terminating at the appliance shutoff valve. The CSST standard specifies compliance with local codes.

The CSST TAG/subcommittee rejected Mr. Sekerchak's request for the following reasons:

1. CSST is not required to terminate at the wall; no information has been provided to indicate that this use and installation is unsafe;
2. Requiring termination of CSST at the wall is overly restrictive and there is no technical justification for such a requirement; and
3. The concern that CSST not to be used as an appliance connector is addressed in the standard.

As a matter of additional information, at its March 2001 meeting, the ANSI Z223.1/NFPA 54 Committee discussed proposals regarding the use of CSST to directly connect to an appliance. There were proposals both for and against the issue. The committee approved a revision to section 5.5.1 of the National Fuel Gas Code, Z223.1/NFPA 54, that was distributed for review and comment during August-September 2001, allowing the use of CSST where installed in accordance with the manufacturer's instructions, as another means for connecting equipment to building piping. The code committee agreed that CSST is allowed by the manufacturer and ANSI LC-1 to directly connect to most non-movable appliances and should therefore be listed as an allowable means of connection.

The scopes of all three standards were provided as an attachment to this item for reference.

Discussion

The Committees were informed that the CAC recommended advising the joint connector TAG that it does not feel a conflict exists between the three ANSI standards. As such, it was felt that the Committee could not prevail in an appeal and no further action should be taken.

It was stated that the only course of action the Committees could possibly take would be to appeal to ANSI. However, it was stated that there does not appear to be a conflict in scopes of the standards.

Committee Action

The Committees unanimously agreed to advise the joint connector TAG that it agrees with the CAC and it does not feel a conflict exists between the indicated connector standards and LC1, and that the Committee could not prevail in an appeal action.

Item 22. Status of Appeal to ANSI on American National Standard/CSA Standard for Connectors for Outdoor Gas Appliances and Manufactured Homes, Z21.75•CSA 6.27

Action Requested

The Committees were asked to review this item for information only.

History

At its April 13, 2000 meeting and by subsequent May 26, 2000 absent member ballot, the Z21/83 Committee considered for approval the proposed standard for Connectors for Outdoor Gas Appliances and Manufactured Homes, Z21.75, for submittal to the American National Standards Institute (ANSI). Objections to the proposed standard were received from Mr. Charles Lamar, Lamar Consultants, Inc. dated February 28, 2000. Following extensive consideration of the proposed standard and the objections, the Committee approved the standard by a vote of 29 approve, 6 disapprove and 2 abstentions.

According to Z21/83 Committee procedures, Mr. Lamar was informed of the Committee's action to approve the proposed standard and its consideration of his comments. He was also informed of his right to appeal the action of the Committee. By facsimile dated November 16, 2000, Mr. Lamar informed Mr. Allen J. Callahan, CSA America, of his intent to appeal the Committee's approval of Z21.75. Generally, his objection states that the standard does not provide adequate testing for outdoor use.

By letter dated November 28, 2000, Mr. Callahan informed Mr. Lamar of his options under the appeal procedures of the Committee. He explained that there are two choices for processing an appeal, "basic" or "formal", as described in clause 11.0 of the Z21/83 Committee's operating procedures.

The appellant, Mr. Lamar, chose the "basic" option for his appeal. Consequently, Mr. Daryl L. Hosler, Chairman of the Z21/83 Committee, selected a 5-person appeal panel which Mr. Lamar accepted. The appeal panel met and declared its ruling on August 31, 2001 with the final report of the panel distributed on October 18, 2001. The finding of the panel was for the respondent, the Z21/83 Committee. ANSI approved the standard on November 27, 2001.

In mid-December 2001, Mr. Lamar exercised his right of appeal to ANSI. It was reported this appeal would be heard before the ANSI Board of Standards Review (BSR) in early May 2002. Mr. Hosler respond before the BSR on behalf of the Committee.

Discussion

It was noted that the specific date of the BSR hearing had been selected as May 2, 2002 in New York, NY.

Committee Action

The Committees accepted this item as information.

Item 23. CSA/CSA America/UL Harmonization Agreement

Action Requested

The Committees were asked to review this item for information only.

History

The Automatic Gas Controls and Food Service Equipment Subcommittees are processing/drafting harmonized standards involving current CSA America Inc., Canadian Standards Association (CSA) and Underwriters Laboratories (UL) standards. Some of these harmonization efforts also incorporate International IEC standards. An agreement had been drafted between the three organizations for these and future harmonization efforts.

The current areas of interest for harmonization include burner ignition systems, combination gas-electric dishwashers and electrically-operated valves. Listings of the standards involved and current status of each project were reported as follows:

1. The burner ignition draft harmonized standard is based on the International Electrotechnical Commission (IEC) Standard for Automated Electrical Controls for Household and Similar Use, IEC 60730-1 Part I, and the IEC Standard for Particular Requirements for Automatic Electrical Burner Controls Systems, IEC 60730-2-5, and takes into consideration:
 - Z21.20, Automatic Gas Ignition Systems & Components;
 - UL 372, Primary Safety Controls For Gas- and Oil-Fired Appliances;
 - UL 8730, Electrical Controls for Household and Similar Use;
 - CAN 1-6.4, Automatic Gas Ignition Systems and Components ; and
 - CAN/CSA C22.2 No. 199, Combustion Safety Controls and Solid-State Igniters for Gas- and Oil-Burning Equipment.

Current Status

At its November 8, 2001 meeting, the Automatic Gas Controls Subcommittee adopted the first draft of the Part 2 standard for the proposed harmonized burner ignition controls, using UL 60730-1 as Part 1 in the U.S. and CSA E60730-1 as Part 1 in Canada, for distribution for review and comment. The proposed harmonized Part 2 standard will be distributed for review and comment during April 2002.

Minutes of the Z21/83 Committee and CSA Technical Committee
18 April 2002

2. The proposed, harmonized gas-electric dishwasher standard is based on:

- UL 921, Commercial Electric Dishwashers;
- AGA 4-92, Requirements for Gas-Fired Commercial Dishwashers;
- CGA 1.12, Gas-Fired Commercial Dishwashers;
- CSA C22.2 No. 3, Electric Features of Fuel-Burning Equipment; and
- CSA C22.2 No 168, Commercial Dishwashing Machines.

Current Status

The proposed harmonized commercial dishwasher standard will be distributed for review and comment during April 2002.

3. The electrically-operated valves draft harmonized standard is a new initiative approved by the Z21/83 Committee by November 23, 1999 letter ballot. It will be developed based on the International Electrotechnical Commission (IEC) Standard IEC 730-2-17, taking into consideration:

- ANSI Z21.21•CSA 6.5, Automatic Valves;
- UL 429, Electrically Operated Valves; and
- CSA C22.2 No 139, Electrically Operated Valves.

Current Status

The Automatic Gas Controls Subcommittee accepted an offer from GAMA's Standards Review Task Group (SRTG) to draft a proposed harmonized electric gas valve standard and assigned the task to GAMA's SRTG. GAMA's SRTG initiated its assignment at its February 2002 meeting.

The Canadian Standards Association (CSA) is the Standards Developing Organization (SDO) for the Canadian standards. CSA America is the Secretariat and co-SDO to the Z21/83 Committee, for the Z21 and Z83 standards in the U.S. Underwriters Laboratories (UL) is the SDO for the UL standards in the U.S.

In December 2002, CSA, CSA America and UL finalized their formal agreement for these and future harmonization efforts.

Committee Action

The Committees accepted this item as information.

Item 24. 2002 Awards of Recognition and Service

Action Requested

The Z21/83 Committee was asked to support the 2002 awardees. The CSA Technical Committee was asked to accept this item for information.

Minutes of the Z21/83 Committee and CSA Technical Committee
18 April 2002

History

The Z21/83 program includes an awards program to recognize Committee and subcommittee members that demonstrate active participation in the program. A list of those being honored this year was provided as an attachment to this item.

Discussion

It was stated that Mr. Charles Adams, A.O. Smith Company, also received a 10-year award. The Committees expressed their sincere congratulations for each of the awardees.

Committee Action

The Z21/83 Committee expressed its support for the 2002 awardees listed in Appendix C. The CSA Technical Committee accepted this item as information.

Item 25. Time and Place of Next Meeting

Action Requested

The Committees were asked to approve April 17, 2003 for their next meeting at Niagara-on-the-Lake, Ontario, Canada.

Discussion

The Committees were informed that Passover falls during the week of the above suggested date, and the CAC recommended changing the Z21/83-CSA Technical Committee next year's meeting to April 24, 2003.

Committee Action

The Committees agreed to hold their next meeting on April 24, 2003 at the Niagara-on-the-Lake, Ontario Canada.

Adjournment

There being no further business before the Committees, the Chairmen thanked the members, guests and staff for their cooperation in making this first joint meeting of the Committees a success and adjourned the meeting at 3:50 p.m. Thursday, April 18, 2002.

Allen J. Callahan
Administrative Secretary, Z21/83 Committee

Senka Krsikapa
Administrative Secretary, CSA Technical Committee

APPENDIX A

PROPOSED REVISIONS TO THE Z21/83 COMMITTEE OPERATION PROCEDURES

Draft

Procedures

for

**ACCREDITED STANDARDS COMMITTEE Z21/83
ON PERFORMANCE AND INSTALLATION OF
GAS BURNING APPLIANCES AND RELATED ACCESSORIES**

July __, 2002

Secretariat
CSA America Inc.



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PROCEDURES FOR ACCREDITED STANDARDS COMMITTEE Z21/83

1.0 GENERAL

The procedures contained herein set forth the scope of Accredited Standards Committee on Performance and Installation of Gas Burning Appliances and Related Accessories, Z21/83. They establish and the methods by which evidence of consensus is developed, and due process is provided during the development of proposed standards for submittal to the American National Standards Institute (ANSI) for recognition as American National Standards. ANSI may audit the records of the Committee for compliance with the ANSI procedures for accredited standards committees.

2.0 SCOPE

Accredited Standards Committee Z21/83 is responsible for the development and maintenance of the Z21 and Z83 ~~project~~ standards for gas burning appliances and related accessories covering construction, safe operation, performance, laboratory test methods, utilization, maintenance and nomenclature.

3.0 COMMITTEE

3.1 Function

The Committee:

- a. Shall exercise general supervision over the initiation, preparation, maintenance and withdrawal of standards within the Committee's scope;
- b. May establish standing Technical Advisory Groups (TAG) Subcommittees, as necessary, to draft standards and develop recommendations on standards matters;
- c. Shall initiate or otherwise approve TAG subcommittee assignments, supervise TAG subcommittee operation and determine the final disposition of all draft standards developed;
- d. May appoint ad hoc task forces for particular projects and shall supervise their operation;

The Committee, with the Secretariat:

- e. Shall develop its own procedures; and
- f. Shall consider and act on proposals to terminate the Committee.

3.2 Membership.

Requests for membership shall be addressed to the Secretariat, indicating the applicant's direct and material interest in the Committee's work and stating qualifications and willingness to participate actively.

Membership shall be subject to approval of the Committee (see 9.2.3).

Applicants not approved for membership by the Committee shall be advised of the reason for Committee disapproval and their rights to appeal (see 12.0).

3.2.1 Organizations: Organizations, including Federal, state and municipal agencies having a direct and material interest in the scope of the Committee's work shall be eligible for membership on the Committee.

3.2.1.1 Member organizations shall designate their official representative(s) to the Committee and may also designate an alternate to the representative.

3.2.1.2 A single organization may hold more than one membership if distinct divisions of the organization can demonstrate separate interests. For example, one division or operating company of a private corporation may show a producing or selling interest while another may show a buyer/user interest; or a government agency may show a buyer/user interest in one department and a separate regulatory concern in another department.

3.2.2 Individuals: Individuals possessing knowledge in the field of the Committee's work shall be eligible for membership in a personal capacity on the Committee. Individual members shall not have alternates.

Persons holding individual memberships must not, at any time during such membership, be employed by or otherwise represent any organization which is itself a member of the Committee or which is eligible to obtain representation on the Committee through some organized group.

3.2.3 Companies: Individual companies having a direct and material interest in standards within the scope of the Committee shall be eligible for membership on the Committee when:

- a. No organized group exists through which companies can obtain representation or when an organized group exists, but the company is not a member thereof,
- b. The company is a member of an organized group which declines Committee membership because standards are not included in its activities;
- c. An organized group is not sufficiently representative of those interested in the project and additional representation must be sought; or

- d. A company is a member of an organized group represented on the Committee, but is substantially concerned with the standards from a point of view not within the scope of the organized group.

3.2.4 Observers (Liaison Members): Individuals and organizations having interest in the Committee's work may request listing on the Committee roster as observers. They shall receive all material distributed to the Committee and may comment, but shall have no vote.

3.2.5 Balance: The membership of the Committee shall be classified from among the following categories:

- a. Gas suppliers;
- b. Gas appliance or accessory manufacturer;
- c. Consumer or User;
- d. General Interest; and
- e. Individual;

f. Regulatory/Code Authority;

g. Research or Testing; and

h. Government agency.

To ensure a substantial balance of interests on the Committee, no one classification shall have a majority.

No person shall represent more than one organization, either as representative or alternate.

The Committee shall approve the classification categories and the rationale therefor.

3.3 Officers.

Committee officers shall include a Chairman, a Vice Chairman and an Administrative Secretary.

3.3.1 Election of Officers: The Chairman and Vice Chairman shall be elected at a meeting by a plurality vote of the Committee for terms of 3 years and shall be eligible for reelection. Each shall serve until a successor is elected and ready to serve. The Vice-Chairman shall carry out the Chairman's duties if the Chairman is temporarily unable to serve.

- a. Elections will be held every third year, at the Committee's annual meeting, beginning in April 1997.

- b. All members of the Committee and the ~~Administrative Secretariat~~ will shall be solicited by the Chairman's Advisory Committee (~~or~~ Nominating Committee) for candidates for the offices of Chairman and Vice Chairman, in advance of the annual meeting.
- c. Candidates for Vice Chairman shall be nominated from the membership of the Committee.
- d. Nominations of candidates shall be submitted in writing to the ~~Committee~~ Administrative Secretary and shall be accompanied by a biography supportive of their candidacy.
- e. After reviewing the list of candidates and supporting documentation, and interviewing candidates as deemed necessary, the Nominating Committee shall select its slate of one candidate for Chairman and one candidate for Vice Chairman. The slate selected by the Nominating Committee may be different from the candidates submitted by the Committee membership.
- f. The slate of the Nominating Committee, together with a list of all other candidates and all supportive documentation, shall be distributed to the Committee membership in advance of the annual meeting at which the election is held. Names of additional candidates will not be accepted from the floor of this meeting, since ample time will not have been provided for the membership to properly review the supportive documentation of such candidates.

Time Table:

- (1) September 1 - the ~~Chairman's~~ Chairman's Advisory Committee (~~or~~ Nominating Committee) will solicit the membership of the Committee for candidates for the offices of Chairman and Vice Chairman. All nominations must be received at the office of the ~~Committee~~ Administrative Secretary no later than October 15.
- (2) November 1 - Names of all candidates, with supportive documentation, shall be submitted to the ~~Advisory Committee~~ (~~or~~ Nominating Committee).
- (3) February 1 - The ~~Advisory Committee~~ (~~or~~ Nominating Committee) shall have completed its review of the candidates and shall have selected its slate of one candidate for Chairman and one candidate for Vice Chairman. This slate, together with a list of all other candidates and all supportive documentation, shall be an item on the agenda to be voted upon at the Committee's April meeting.
- (4) April (annual meeting) - election of Chairman and Vice Chairman.

3.3.2 Administrative Secretary.

The Administrative Secretary shall be a Secretariat staff member appointed by the Secretariat and shall have no vote.

3.4 Meetings.

- 3.4.1 Call of Meetings: Meetings shall be held at the discretion of the Chairman after reviewing with the Administrative Secretary the items of business pending consideration. There shall be at least one meeting annually with written or electronic notice to the membership, including a list of subjects to be considered.
- 3.4.2 Quorum: A majority of the membership shall constitute a quorum for the purpose of conducting business at a meeting.
- 3.4.3 Public Notice: Public notice of meetings of the Committee relating to the development of standards shall be published in a medium* which will reach persons reasonably expected to have an interest in the standards. This notice shall appear at least 6 weeks prior to a regularly scheduled meeting. The notice shall include a brief description of the purpose of the meeting and the name, address and telephone number of the Administrative Secretary for requests for Secretariat staff which can provide further information on the meeting or activity.
- 3.4.4 Openness: Meetings shall be open to all interested parties. The public notice of Committee meetings may request that interested parties planning to attend the meeting notify the Secretariat in advance of the meeting to ensure that adequate meeting facilities are available.

Parties wishing to attend the public meeting of the Committee to present specific comments on items of business concerning recommended standards proposals, ~~recommended~~, or action taken by a TAG(s) subcommittee(s), shall notify the Committee Chairman, with a copy to the Administrative Secretary, in writing at least 4 weeks prior to the meeting date. Such notification shall include a copy of the commentor's written presentation. The Secretary shall forward a copy of the comments to the Chairman of the involved TAG subcommittee.

The Chairman (or representative) of the TAG subcommittee is expected to be present during discussion of the standards proposals to present the TAG's subcommittee's position and to address the comments and, shall so advise the Committee Chairman and Secretary at least 2 weeks prior to the meeting. (Also see 10.4.)

3.5 Voting Procedures.

- 3.5.1 General:
- 3.5.1.1 Each representative and alternate shall exercise his/her voting privilege. If by letter ballot, this shall be within prescribed time limits. An alternate's vote shall be counted only if the representative is not at a meeting or does not execute a his ballot.

* The ANSI Reporter and its Standards Action enclosure, a biweekly publication, is considered such a medium.

- 3.5.1.2 No person shall cast a vote for more than one organization, either as representative or alternate.
- 3.5.1.3 The final vote of the Committee on proposed standards shall be by recorded vote at a meeting, by written ballot or a combination thereof. Each representative entitled to vote shall vote one of the following positions:
- a. ~~Approve~~ Affirmative;
 - b. ~~Approve~~ Affirmative with comment;
 - c. ~~Disapprove~~ Negative, with reasons; and
 - d. Abstain, with reasons.
- 3.5.1.4 A member not returning a letter ballot or abstaining from voting shall be considered as not voting.
- 3.5.2 At Meetings:
- 3.5.2.1 A premeeting letter ballot may be made in advance of a meeting to obtain a vote from the Committee on meeting agenda items concerning proposed standards, including the reaffirmation or withdrawal of existing standards. If a premeeting letter ballot of the Committee is made, it shall be distributed at least 6 weeks before the meeting and follow-up letters issued as required by 3.5.3.3. Members may change their vote cast on the premeeting ballot at the meeting. For those members unable to attend the meeting, their premeeting ballot will be recorded as their final vote on each proposal, unless the proposal is substantively revised at the meeting, in which case the absent members will be given an opportunity to change their vote.
- 3.5.2.2 The following actions require approval by at least two-thirds of those voting and by at least a majority of the entire voting membership:
- a. New standard or reaffirmation of an existing standard;
 - b. Revision or addendum to part or all of an existing standard;
 - c. Change of Committee scope;
 - d. Termination of the Committee; and
 - e. Committee procedures or revisions thereto; and
 - f. ~~Casting an approving vote, under the ANSI canvass method, on a proprietary standard within the Committee's scope.~~

3.5.2.3 Members not present and not represented by their alternates at the meeting shall be balloted (also see 3.5.2.1). The absent member ballot shall advise the absent members and their alternates of the actions of the Committee, including the reasons for any unresolved ~~negative~~ disapproving votes cast at the meeting, and request return of the ballot within 4 weeks. Approximately 2 weeks prior to the closing date of the ballot, follow-up ~~letters~~ reminders shall be forwarded to those members and their alternates who have not returned a ballot.

3.5.2.4 The following actions require approval by a majority of the entire voting membership:

- a. Withdrawal of an existing standard;
- b. Formation or disbanding of a subgroup;
- c. Subgroup procedures, including scope and duties;
- d. Approval of minutes;
- e. Approval of new Committee members and their membership classification; and
- f. Membership classification categories.

If necessary, the absent member ballot procedure described under 3.5.2.1 shall be used.

3.5.3 By Letter Ballots: A letter ballot may be authorized by any of the following:

- a. Majority vote of those present at a Committee meeting;
- b. The Chairman;
- c. On petition of 5 or more members of the Committee;
- d. The Secretariat.

3.5.3.1 The following actions require approval by at least two-thirds of those voting and by at least a majority of the entire voting membership:

- a. New standard, or reaffirmation of an existing standard;
- b. Revision or addendum to part or all of an existing standard;
- c. Change of Committee scope;
- d. Termination of the Committee; and
- e. Committee procedures or revisions thereto; ~~and~~

~~f. Casting an approving vote, under the ANSI canvass method, on a proprietary standard within the Committee's scope.~~

3.5.3.2 The following actions require approval by a majority of the entire voting membership:

- a. Withdrawal of an existing standard;
- b. Formation or disbanding of a subgroup;
- c. Subgroup procedures, including scope and duties;
- d. Approval of minutes;
- e. Approval of new Committee members and their membership classification; and
- f. Membership classification categories.

3.5.3.3 The voting period for a letter ballot shall end 6 weeks following the date of issue or as soon as all ballots are returned, whichever comes first. Approximately 2 weeks prior to the closing date of the ballot, follow-up ~~letters~~ reminders shall be forwarded to those members and their alternates who have not returned a ballot.

3.5.3.4 Results of all letter ballots shall remain confidential to the Secretariat and officers of the Committee until the balloting has been closed.

3.5.4 ~~Disapproving~~ Negative and Abstaining Votes:

3.5.4.1 Meetings. All ~~disapproving~~ negative and abstaining votes cast at a meeting on proposed standards shall be recorded by the Secretary and the reasons for such votes, along with specific wording or action which would resolve the ~~disapproving~~ negative vote, shall be stated at the meeting. Following the meeting, the representatives (or alternate) casting unresolved ~~disapproving~~ negative and abstaining votes shall provide the ~~Administrative~~ Secretary, in writing, confirmation of their reasons for so voting at the meeting within 3 weeks following the meeting. The reasons for ~~disapproving~~ negative votes shall also include the specific wording or action ~~that~~ which would resolve the ~~disapproving~~ negative vote.

3.5.4.2 Letter Ballots. All ~~disapproving~~ negative and abstaining votes cast by letter ballot on proposed standards shall be accompanied by reasons for such votes along with specific wording or action ~~that~~ which would resolve the ~~disapproving~~ negative vote.

3.5.5 Disposition of Disapproving Negative Votes:

3.5.5.1 All ~~disapproving~~ negative votes, the reasons therefor and any recommended solutions shall be reviewed by the Chairman to determine how they shall be considered. All such information shall be considered by the Committee, either by correspondence or at a meeting, and resolution of the ~~disapproving~~ negative votes attempted, with the results

made known to the representative (or alternate) who cast the disapproving negative vote(s).

3.5.5.2 Substantive changes made in a proposed standard to resolve disapproving negative votes shall be submitted to the Committee within 4 weeks with a 4 week period given in which the members shall have the opportunity to express opposition to the changes.

3.5.5.3 If, after consideration, disapproving negative votes cannot be resolved, they shall be reported to the Committee with copies of the reasons given for the disapproving negative votes. Each member who wishes to change his original vote shall so indicate within 4 weeks. If such action occurs at a meeting, those members not attending shall be made cognizant of all votes, reasons for votes, discussions and substantive changes and shall be requested to vote so that an expression from the full membership may be obtained.

3.6 Communications.

Committee officers, when acting in their official capacity, shall use Committee letterhead. Committee letterhead shall not be used for other than Committee business.

4.0 CHAIRMAN'S ADVISORY COMMITTEE

4.1 Function.

- a. The Chairman's Advisory Committee shall assist the Chairman of the Committee in the administration of the activities of the Committee, but shall have no authority to act for the Committee on matters concerning standards.
- b. The Chairman's Advisory Committee shall also serve as a nominating committee for the officers of the Committee.

4.2 Membership.

The members of the Chairman's Advisory Committee shall be selected from the Committee membership. The Committee Chairman shall be a member and shall serve as the presiding officer.

4.3 Meetings.

The meetings shall be held at the call of the Chairman. A majority of the membership shall constitute a quorum.

4.4 Voting.

All actions shall be decided by a majority of the members voting.

5.0 TECHNICAL ADVISORY GROUPS SUBCOMMITTEE

5.1 Organization and Function.

5.1.1 Establishment: The establishment of a Technical Advisory Group (TAG) Subcommittee and its scope of operation shall require a majority vote of the Committee. A TAG subcommittee shall be a standing technical group which drafts gas appliance or accessory standards within its assigned scope for consideration by the Committee and otherwise acts in an advisory capacity to the Committee. ~~Public notice (see 3.4.3) shall be given of the establishment of a Subcommittee and its proposed scope.~~

5.1.2 Ad Hoc Working Groups: A TAG Subcommittee may appoint an ad hoc working group to address a particular subject of direct concern to the TAG Subcommittee. The members shall be appointed by the TAG Subcommittee chairman and may include, in addition to TAG Subcommittee members, individuals who have knowledge and interest in the subject of the working group's assignment. The group shall report directly to the TAG Subcommittee and, upon completing its assignment, be discharged. A majority vote is necessary to submit for working group recommendations to the TAG Subcommittee.

5.1.3 ~~Standing Working Groups: A Subcommittee may also appoint a standing working group to aid in its activities. A majority vote is needed for working group recommendations to the Subcommittee.~~

5.2 Membership.

An individual serving on ~~a~~ the TAG subcommittee shall have technical expertise in his/her field ~~that~~ ^{which} can be related to the development of standards for particular products covered by the standards supervised by the TAG subcommittee. Areas of expertise can include but are not limited to design, operation, service/utilization, standards writing, or standards/codes application.

Individuals shall have a minimum of three years experience.

5.2.1 Appointment of Members: Members of TAG's technical Subcommittees shall be appointed by the Committee Chairman on behalf of the Committee. The individual appointed is the member of the TAG Subcommittee, not the company or organization with which the individual is affiliated.

There shall be no alternates for TAG Subcommittee members. However, when a member is unable to attend a meeting, he/~~she~~ ^{it/they} may designate a representative for that meeting which shall be confirmed in writing to the Secretariat, prior to the day of the subcommittee meeting.

5.2.2 Term of Appointment: Subcommittee TAG members shall be appointed or removed by the Committee Chairman subject to the criterion of section 5.0 ~~for a term of three years and shall be eligible for reappointment.~~

- 5.2.3 Balance: Since a TAG Subcommittee drafts proposed standards or parts of standards and otherwise acts in a purely advisory capacity to the Committee, the TAG Subcommittee membership need not be balanced as required for the Committee in 3.2.5.

TAG Subcommittee membership categories primarily include: (See Appendix A, Definitions):

- Gas Supplier, Natural
- Gas Supplier, LP-Gases
- Equipment Manufacturers
- Auxiliary Equipment Manufacturers (on appliance TAGs subcommittees)
- Equipment Seller, Installer or Service Contractor
- Regulatory Authority/Code Authority
- Consumer/User
- Independent Expert

~~In view of the technical expertise needed to draft the standards, Subcommittee membership normally will be predominantly comprised of gas supplier and gas equipment manufacturer interests. Care shall be exercised that no one interest can control the decisions of a Subcommittee. No single company or organization shall have more than one individual on a TAG Subcommittee.~~

5.3 Officers.

Each TAG Subcommittee shall have a chairman appointed by the Chairman of the Committee. A staff member of the Secretariat shall serve as acting secretary and shall have no vote.

5.4 Meetings.

Call of Meetings: Meetings shall be held at the discretion of the TAG Subcommittee chairman after reviewing the items of business pending consideration.

Quorum: One fourth (1/4) of the membership, but not less than four, shall constitute a quorum for the purpose of conducting business at a meeting.

A member abstaining from vote on a given issue at a meeting shall be considered present for the purpose of determining a quorum.

Attendance: A TAG subcommittee member missing two consecutive meetings shall be notified by the Administrative Secretary secretariat that failure to attend or be represented at the next meeting will result in the member automatically being removed from the TAG subcommittee. A formal notification of this action will be sent to the member.

Attendance by a designated representatives (see 5.2.1) for a TAG subcommittee member will satisfy the above attendance requirement.

5.4.1 Voting.

5.4.1.1 On Standards: Adopting a new standard's provision and a revision or deletion of an existing standard's provision requires an approve affirmative vote of the members voting of not less than:

1. Two-thirds for distribution for comment for subjects presented in agenda items distributed prior to a meeting;
2. Four-fifths for distribution for comment for subjects presented at the meeting; and
3. Four-fifths for submittal to the Committee.

In 1, 2, and 3 above, an approve affirmative vote of a majority of the members present is also required.

If the total numbers of votes is either 3 or 4, a majority shall suffice.

5.4.1.2 On Other Than Standards: Actions not involving a new provision or the revision or deletion of an existing provision shall be decided by an approve affirmative vote of a majority of the members present.

5.4.1.3 Vote Count: A member absent from a meeting or abstaining from voting shall be considered as not voting.

5.5 Letter Ballot.

5.5.1 Voting.

5.5.1.1 On Standards: Adopting a new standard's provision and a revision or deletion of an existing standard's provision requires an approve affirmative vote of the members voting of not less than four-fifths. If the total number of votes is 3 or 4, a majority shall suffice.

An approving affirmative vote of a majority of the members is also required.

5.5.1.2 On Other Than Standards: Actions not involving a new provision or the revision or deletion of an existing provision shall be decided by an approving affirmative vote of a majority of the members.

5.5.1.3 Vote Count: A member not returning a letter ballot or abstaining from voting shall be considered as not voting.

6.0 **JOINT TECHNICAL ADVISORY GROUPS SUBCOMMITTEE**
(TAG Subcommittee of both the Z21/83 Committee and a Canadian Standards Gas Association's Technical Committee Standards Steering Committee)

6.1 Organization and Function.

6.1.1 Establishment: The establishment of a Joint Technical Advisory Group (TAG) Subcommittee and its scope of operation shall require a majority vote of the Committees. A joint TAG subcommittee shall be a standing technical group which drafts gas appliance or accessory standards within its assigned scope for consideration by the Z21/83 Committee and CSA CGA Standards Technical Committee (TC) and otherwise acts in an advisory capacity to the Committees. ~~Public notice (see 3.4.3) shall be given of the establishment of a Joint Subcommittee and its proposed scope.~~

6.1.2 Ad Hoc Working Groups: A Joint TAG Subcommittee may appoint an ad hoc working group to address a particular subject of direct concern to the Joint TAG Subcommittee. The members shall be appointed by the Joint TAG Subcommittee Chairman and may include, in addition to Joint TAG Subcommittee members, individuals who have knowledge and interest in the subject of the working group's assignment. The group shall report directly to the Joint TAG Subcommittee and, upon completing its assignment, be discharged. A majority vote is necessary to submit for working group recommendations to the Joint TAG Subcommittee.

~~6.1.3 Standing Working Groups: A Joint Subcommittee may also appoint a standing working group to aid in its activities. A majority vote is needed for working group recommendations to the Joint Subcommittee.~~

6.2 Membership.

An individual serving on the joint TAG subcommittee shall have technical expertise in his/her field ~~that~~ which can be related to the development of standards for particular products covered by the standards supervised by the Joint TAG subcommittee. Areas of expertise can include but are not limited to design, operation, service/utilization, standards writing, or standards/codes application.

Individuals shall have a minimum of three years experience.

6.2.1 Appointment of Members: Members of a Joint TAG Subcommittee shall be appointed by the Z21/83 Committee Chairman and the CSA TC CGA Standards Steering Committee Chairman on behalf of the respective Committees.

6.2.1.1 Alternate Members: An alternate member may be nominated by a voting member, subject to the approval of the respective Committees' Chairmen. In the event the principal member is unable to cast a vote on a letter ballot or attend a meeting, the alternate member may vote on behalf of the principal member.

6.2.1.2 Designated Representatives: When the principal member and the alternate member are unable to attend a meeting, the principal member may designate a representative for that meeting who shall be confirmed in writing to the Administrative Secretary Secretariat,

prior to the day of the Joint TAG subcommittee meeting. The designated representative may vote on behalf of the principal member.

- 6.2.2 Term of Appointment: Joint TAG Subcommittee members shall be appointed or removed by the Committee Chairman subject to the criterion of section 6.0. for a term of three years and shall be eligible for reappointment.
- 6.2.3 Balance: Since a Joint TAG Subcommittee drafts proposed standards or parts of standards and otherwise acts in a purely advisory capacity to the Committees, the Joint TAG Subcommittee membership need not be balanced as required for the Committee in 3.2.5.

Joint TAG Subcommittee member categories primarily include:

- Gas Supplier, Natural
- Gas Supplier, LP-Gases
- Equipment Manufacturers
- Auxiliary Equipment Manufacturers (on appliance TAGs subcommittees)
- Equipment Seller, Installer or Service Contractor
- Regulatory Authority/Code Authority
- Consumer/user
- Independent Expert

~~In view of the technical expertise needed to draft the standards, Joint Subcommittee membership normally will be predominantly comprised of gas supplier and gas equipment manufacturer interests.~~

~~Either Committee Chairman may appoint an equal number of representatives to the Joint Subcommittee. Care shall be exercised that no one interest can control the decisions of a Joint Subcommittee. No single company or organization shall have more than one individual on a Joint TAG.~~

- 6.3 Secretariat
- 6.3.1 Joint TAG Subcommittee activities shall be administered by shared secretariat support from CSA America, Inc. International Approval Services - U.S., Inc. and the Canadian Standards Association (CSA) Canadian Gas Association. A staff member of CSA America, Inc. or CSA shall serve as acting secretary and shall have no vote.
- 6.4 Officers.

~~Each Joint TAG Subcommittee shall have a chairman and a vice chairman. If the Joint Subcommittee chairman is appointed by the Chairman of the Z21/83 Committee, then the Joint Subcommittee vice chairman is appointed by the Chairman of the CGA Standards Steering Committee. If possible, an equal number of chairmen shall be appointed by each of the Committee Chairman. The vice chairman shall assume the office of chairman if the chairman is no longer able to serve. In this case, a new Joint subcommittee vice chairman will be appointed by the entity which had appointed the~~

~~previous joint subcommittee chairman. A staff member of the Secretariat shall serve as acting secretary and shall have no vote.~~

6.5 Meetings.

Call of Meetings: Meetings shall be held at the discretion of the Joint TAG Subcommittee chairman after reviewing the items of business pending consideration.

Quorum: One fourth (1/4) of the membership, but not less than four, shall constitute a quorum for the purpose of conducting business at a meeting.

A member abstaining from vote on a given issue at a meeting shall be considered present for the purpose of determining a quorum.

Attendance: A TAG subcommittee member missing two consecutive meetings shall be notified by the Administrative Secretary secretariat that failure to attend or be represented at the next meeting will result in the member automatically being removed from the TAG subcommittee. A formal notification of this action will be sent to the member.

Attendance by alternates or designated representatives for a TAG subcommittee member will satisfy the above attendance requirement.

6.5.1 Voting.

6.5.1.1 On Standards: Adopting a new standard's provision and a revision or deletion of an existing standard's provision requires an approve affirmative vote of the members voting of not less than:

- a. Two-thirds for distribution for comment for subjects presented in agenda items distributed prior to a meeting;
- b. Four-fifths for distribution for comment for subjects presented at the meeting; and
- c. Four-fifths for submittal to the Committee.

In "a," "b," and "c" above, an approve affirmative vote of a majority of the members present is also required.

If the total number of votes is either 3 or 4, a majority shall suffice.

6.5.1.2 On Other Than Standards: Actions not involving a new provision or the revision or deletion of an existing provision shall be decided by an approve affirmative vote of a majority of the members present.

6.5.1.3 Vote Count: A member absent from a meeting or abstaining from voting shall be considered as not voting.

6.6 Letter Ballot

6.6.1 Voting.

- 6.6.1.1 On Standards: Adopting a new standard's provision or a revision or deletion of an existing standard's provision requires an approve affirmative vote of the members voting of not less than four-fifths. If the total number of votes is 3 or 4, a majority shall suffice.

An approve affirmative vote of a majority of the members is also required.

- 6.6.1.2 On Other Than Standards: Actions not involving a new provision or the revision or deletion of an existing provision shall be decided by an approve affirmative vote of a majority of the members.

- 6.6.1.3 Vote Count: A member not returning a letter ballot or abstaining from voting shall be considered as not voting.

7.0 ETHICS POLICY FOR TECHNICAL ADVISORY GROUPS AND JOINT TECHNICAL ADVISORY GROUPS

Members in the "Independent Expert" membership category consist of independent consultants and experts who are generally not employed by any specific company or organization. On occasion an independent expert may be retained by a client to represent its particular interest on an issue or issues. If that client currently has another affiliate to represent its interests on the relevant TAG, the independent expert shall not be regarded as an independent interest. Under such circumstances, the independent expert must declare his/her alliance of interests to the TAG and refrain from voting.

Similarly, any member from any membership category who is retained to represent an issue or issues on another company or organization's behalf that is already associated with a member on the TAG, shall declare his/her alliance of interests to the TAG and refrain from voting.

8.0 AD HOC TASK FORCE

8.1 Organization and Function

The Committee, by a majority vote, may appoint an ad hoc task force to initiate the development of a standard not within the scope of an existing TAG subcommittee or to investigate or study an individual standards matter of direct concern to the Committee. The task force shall report directly to the Committee and, upon completing its assignment, be discharged. Draft standards developed by a the task force require Committee approval for distribution for comment.

8.2 Membership.

Members of ad hoc task forces of the Committee shall be appointed by the Chairman of the Committee and may include, in addition to members of the Committee, individuals who have knowledge and interest in the subject of the task force's assignment.

8.3 Voting.

Ad hoc task force voting shall comply with 5.5.1.

9.0 SECRETARIAT

9.1 Administrative Function.

The Secretariat shall provide the administrative services required by the Committee and its TAGs subcommittees to develop standards in accordance with these procedures. The administrative services shall include:

- a. Maintenance of Committee accreditation in accordance with ANSI procedures;
- b. Monitoring the Committee's activities for compliance with these procedures;
- c. Meeting notices and arrangements;
- d. Preparation and distribution of meeting agendas, meeting minutes, letter ballots and draft standards;
- e. Submittal of proposed standards approved by the Committee, with supporting documentation, for ANSI public review and approval as American National Standards;
- f. Publication of standards and addenda developed by the Committee and approved as American National Standards;
- g. Maintenance of a list of standards under the Committee's jurisdiction;
- h. Providing the Committee's secretarial services;
- i. Other administrative functions as required by these procedures.

9.2 Committee Membership.

- 9.2.1 Request for Membership: All requests for Committee membership shall be addressed to the Administrative Secretary Secretariat. Such requests shall indicate the applicant's direct and material interest in the Committee's work, with particular emphasis on the applicant's involvement in the development and safe operation of gas-burning

appliances and their related accessories. The request must further state the category of membership applied for (see 3.2), applicant's qualifications and willingness to participate actively, and identify a representative (and an alternate representative, if desired, if the applicant is an organization, company, or government entity.)

Requests for membership must be confirmed in writing signed by a person having authority to commit the applicant to assume the responsibilities of membership. In case a single entity seeks to hold more than one membership (see 3.2.1.2), the request must be signed by a person in each interested division or operating company of a corporate entity, or in each interested agency of a government entity, having authority to commit the entity to assume responsibilities of such membership.

9.2.2 Secretariat's Review and Findings: The Administrative Secretary Secretariat shall review and assemble information relevant to a determination whether an applicant has met the requirements for membership (see 8.2.1) and present it, together with any requisite documentation and comments, to the Committee Chairman and Secretariat for appropriate action. In so doing, the Administrative Secretary Secretariat shall concentrate on any factors pertinent to the applicant's qualifications for membership, and report any bearing such factors may appear to have thereon. Among such factors to be taken into consideration are:

- a. Need for active participation by each interest category;
- b. Potential for domination by a single interest;
- c. Reasonable limits on Committee size;
- d. Qualifications and extent of interest expressed by the applicant; and
- e. Membership classification.

9.2.3 Action by Committee Chairman on Application for Membership: Following receipt of the Administrative Secretary's Secretariat's report on an application for membership pursuant to 8.2.2, the Chairman with the Secretariat, upon reviewing the report, may:

- a. Request the Administrative Secretary Secretariat to obtain additional, specified information;
- b. Review the application and report with the Chairman's Advisory Committee, and seek its recommendation;

In due course, the Chairman with the Secretariat will:

- c. Direct the Administrative Secretary Secretariat to arrange for a vote on the application either:
 1. At a duly convened meeting of the Committee, or
 2. By letter ballot of the Committee; and

- d. Notify, or request the Administrative Secretary Secretariat to notify, the applicant of the result of the vote of the Committee and any action ~~that~~ which may be taken as a consequence thereof.
- 9.2.4 Membership Voting Record: When a Committee member's representative or his/her its alternate fails repeatedly to return ballots or attend meetings, or consistently abstains from voting, the Administrative Secretary Secretariat shall contact the representative or the member organization, as appropriate, to establish if the organization wishes to continue to hold membership on the Committee. Any further action in such cases shall be at the discretion of the Committee and the Secretariat.
- 9.2.5 Membership Roster: The Secretariat shall maintain a current and accurate roster of the Committee and its Technical Advisory Groups and Joint Technical Advisory Groups Subcommittees.
- 9.2.5.1 Committee Roster: The Committee roster shall be distributed to the Committee at least annually, and otherwise on request, and shall include the following.
- a. Title of the Committee and its designation;
 - b. Scope of the Committee;
 - c. Secretariat organization, with Administrative Secretary's name and address;
 - d. Officers - Chairman and Vice Chairman;
 - e. Members - name of organization or agency, its representative(s) and alternate as applicable, addresses, and business affiliation; or name, address and business affiliation of individual member(s);
 - f. Classification of each member;
 - g. Tally of classification - total of voting members and subtotals for each interest category.
- 9.2.5.2 Technical Advisory Group and Joint Technical Advisory Group Subcommittee Roster: The TAG subcommittee rosters shall include the following:
- a. Title of the TAG and Joint TAG subcommittee
 - b. Scope of the TAG and Joint TAG subcommittee
 - c. Chairman, Vice Chairman and names and addresses of all members.
- 9.2.6 Committee Administrative Secretary: The Committee Administrative Secretary shall be a member of the Secretariat staff and shall have no vote.

9.3 Meeting Schedule.

The Secretariat shall issue and maintain a schedule of future Committee meetings.

9.4 Records.

The Secretariat shall maintain appropriate records of the Committee and its TAGs and Joint TAGs subcommittees, in sufficient detail to enable review and understanding of these activities, for at least one complete standards cycle or a minimum of five years for withdrawn standards. These records shall include but shall not necessarily be limited to:

- a. Meeting agendas for Committee, and TAG and Joint TAG subcommittee meetings;
- b. Minutes of Committee, and TAG and Joint TAG subcommittee meetings, letter ballots and letter ballot summaries;
- c. Draft standards, proposed standards and published standards;
- d. Appeals and their disposition.

10.0 DEVELOPMENT OF STANDARDS

The procedures set forth in this section detail the manner in which the Committee develops standards are developed. They represent a process of development, public review and reconsideration for the purpose of determining consensus and providing due process in accordance with ANSI procedures.

10.1 Initiation of Standards or Standards Revisions.

- 10.1.1 Requests: Any written request or recommendation received by the Secretariat relative to developing a standard or revising an existing standard shall be referred to the appropriate Technical Advisory Group (TAG) or Joint TAG subcommittee, or to the Committee if no appropriate TAG or Joint TAG subcommittee exists. In the latter case the Committee may elect to establish an ad hoc task force to consider the request.

- 10.1.2 Technical Advisory Group Subcommittee Meetings: Meetings shall be scheduled at such time as there are a reasonable number of business items to consider or when an item of business requiring expeditious consideration cannot be handled by correspondence. A smaller ad hoc working group task group of the TAG or Joint TAG subcommittee may meet to handle controversial issues, followed by a letter ballot of the entire TAG or Joint TAG subcommittee.

10.1.3 Letter Ballots:

Letter ballots shall be used to manage the number of meetings and the size of meeting agendas. Administrative and routine issues, and working group task group

recommendations on controversial issues, can be handled by TAG or Joint TAG subcommittee balloting.

- 10.1.4 Meeting Agenda: TAG or Joint TAG ~~M~~meeting agenda shall be prepared for all pending business items. The originators of agenda items shall be advised of the time and place of the meeting so they, or their representative, may attend the meeting to present their views.

The TAG or Joint TAG subcommittee shall consider each item on the meeting agenda to determine if the initiation of a standard or a revision to an existing standard under its supervision is warranted. Submitters of proposals rejected by the TAG or Joint TAG subcommittee shall be advised in writing of the reasons for the rejection and that they may have their concerns heard by the Committee.

- 10.1.5 Drafting Standards: The TAG or Joint TAG subcommittee shall develop a ~~draft~~ proposed standard or ~~draft proposed~~ revisions to an existing standard, as deemed necessary. The TAG or Joint TAG shall keeping in mind that preference ~~shall~~ is to be given to the use of performance criteria, measurable by examination or testing when such criteria may reasonably be used in lieu of design, materials or construction criteria.

10.2 Distribution for Comment.

- 10.2.1 Preparation of Standards Proposals: Any substantive standards proposals approved by the TAG or Joint TAG subcommittee (see 5.4.1 5.5.1, 5.6.1, 6.6.1 and 6.7.1) shall be prepared for distribution for comment, detailing the ~~draft standards proposals~~ and including rationales ~~reasons~~ for the proposals.

Standards revisions adopted by one TAG or Joint TAG subcommittee on issues common to standards under several TAGs or Joint TAGs subcommittees can be prepared and processed by the Secretariat for all applicable standards, and distributed for review and comment.

- 10.2.2 Distribution: The Secretariat shall distribute ~~draft standards proposals shall be distributed for comment~~ to a list of organizations and individuals maintained by the Secretariat and known to have an interest in the standards, or posted on a web site. and Upon request, copies will be made available upon request to other interested parties not on a mail list or not having web site access.

- 10.2.3 Comment Received: All comments received on a proposals, as a result of the distribution, shall be compiled by the Secretariat for TAG or Joint TAG subcommittee consideration.

10.3 Consideration of Comments.

- 10.3.1 Reconsideration of Proposals: The TAG or Joint TAG subcommittee shall reconsider each standards proposal in light of any comments received. Submitters of comments rejected by the TAG or Joint TAG subcommittee shall be advised in writing of the reasons for the rejection and that they may have their concerns heard by the Committee.

10.3.2 Technical Advisory Group Subcommittee Action: As a result of considering all comments received, the TAG or Joint TAG subcommittee shall act (see 5.4.1 5.5.1, 5.6.1, 6.6.1 and 6.7.1) to either:

- a. Approve the proposal(s) for submittal to the Committee;
- b. Approve the proposal(s) for redistribution for comment if substantively revised; or
- c. Not approve the proposal(s) if it is concluded the comments indicate a lack of consensus for the proposal(s).

10.4 Committee Action.

The Committee shall consider the proposed standards, standards revisions, reaffirmations and withdrawals, and any comments made to the Committee on standards proposals. The Committee shall determine, in accordance with the voting procedures under 3.5, if the standards proposal is to be submitted to ANSI. Submitters of comments rejected by the Committee shall be advised in writing of the reasons for the rejection and that they may appeal the action of the Committee. (Also see 11.0.)

If the Committee decides not to submit a proposal to ANSI, but rather decides to return the proposal to the concerned submitting group for review and action as indicated, the Committee shall state its reason for such action in sufficient detail to enable the group to deal with the matter in a satisfactory manner.

10.5 Submittal to ANSI.

10.5.1 Submittal for Public Review: Standards proposals approved by the Committee for submittal to ANSI for consideration of recognition as American National Standards shall be submitted, in proper form, by the Secretariat to ANSI for its public review period.

10.5.1.1 When the need exists to expedite approval of a standards proposal by ANSI, the Committee public review process (see 10.2) or Committee consideration (see 10.4) may take place concurrent with the ANSI public review period.

10.5.2 Response to Comments: The Secretariat shall respond to comments received as a result of ANSI public review. The response shall be based on the recorded actions of the Committee and/or its TAG or ad hoc task force subcommittees.

10.5.3 Formal Submittal: Following ANSI public review and response to all comments received, the Secretariat shall submit the standards proposal to the ANSI Board of Standards Review for consideration of approval.

10.5.4 Publication of Standard: Following approval of a standard's proposal by ANSI, the Secretariat shall publish and issue it as either a new standard, an addendum to an existing standard or a new edition of an existing standard, as appropriate.

11.0 REVIEW OF STANDARDS

11.1 Revisions of Standards.

Each standard under the jurisdiction of the Committee shall be reviewed in light of requests and recommendations, and revisions to standards initiated as warranted.

Standards may be revised as frequently as necessary in line with indicated safety needs, industry developments or current state of the art.

11.2 Reaffirmation of Standards.

An Each existing standard edition and addenda ~~which has not been revised for five years~~ shall be reviewed by the appropriate TAG or Joint TAG subcommittee at the beginning of the fifth year of publication of the standard. If it is determined that the standard is needed ~~but that no modification is required~~, the TAG or Joint TAG subcommittee shall recommend to the Committee the reaffirmation of the standard ~~without revision~~.

11.3 Withdrawal of Standards.

Standards that ~~which~~ have not been revised (see 9.1) ~~and not~~ reaffirmed (see 10.2) shall be withdrawn. Consideration of withdrawal may be initiated at any time.

12.0 APPEALS

Directly and materially affected persons who believe they have been or will be adversely affected by any action or inaction of the Committee or the Secretariat shall have the right to appeal such action or inaction.

12.1 Complaints.

The appellant shall file a written complaint with the Secretariat by registered mail within 6 weeks after notification of action or at any time with respect to inaction. The complaint shall state the nature of the objection(s), including any adverse effects, the section(s) of the standard and/or the Committee procedures which are at issue, actions and/or inactions which are at issue, and the specific remedial action(s) which would satisfy the appellant's concerns. Previous efforts to resolve the objection(s) shall be noted, including the outcome of each.

12.2 Response.

The respondent (Chairman or secretariat representative) shall, within two weeks acknowledge receipt of the appellant's complaint. The respondent shall advise the appellant of the appeals processes available to the appellant as described in 11.3 and 11.4. The appellant shall be asked if he/she wishes to pursue the basic or formal process of appeals. The appellant shall respond in writing to the secretariat within 2 weeks ~~a reasonable time period~~ as to which process they prefer.

12.3 Appeal Process Option A, Basic

12.3.1 The Chairman shall appoint five individuals to serve as an appeals panel. The Chairman, to the best of his knowledge, shall determine that the individuals appointed are not directly involved with the issue at hand. The appellant shall be given the opportunity to accept the panel members selected by the Chairman. Three of the five members shall be acceptable to the appellant. In this process the secretariat may research records relevant to the allegations of the appellant prior to the panel deliberating the appeal, in order to assist the panel in rendering a decision. Any such information shall be provided by the secretariat to the appellant, respondent and panel members.

12.3.2.1 The panel shall meet within four weeks following completion of compiling and distributing the information addressed in 11.3.1, to hear the appeal and render its decision. The hearing can be conducted by telephone conference with all panel members in session. The appellant and respondent shall be invited to participate.

12.4 Appeal Process Option B, Formal

12.4.1 ~~The appellant, When the appellant notifies~~ notifying the secretariat in writing that he/she selects the formal appeals process, ~~shall remit a deposit to cover initiating administrative investigation and processing of the appeal.~~ the secretariat shall provide the appellant within two weeks, ~~with~~ an estimate of ~~the costs~~ charges that will be rendered upon completion of the appeal. The appellant shall remit a deposit of 25 percent of the estimated costs to the secretariat to cover initiating administrative investigation and processing of the appeal. ~~The Appellant is responsible for all costs~~ charges.

12.4.2 Within 4 weeks after receipt of the appellant's request for a formal appeal, the respondent (Chairman or Secretariat representative) shall respond in writing to the appellant, specifically addressing each allegation in the complaint, to the extent of the respondent's knowledge.

12.4.3 Hearing.

If the appellant and the respondent are unable to resolve the complaint informally in light of the written complaint and response, the Secretariat shall arrange to convene an Appeals Panel on a date agreeable to all participants, giving at least 2 weeks notice.

12.4.4 Appeals Panel.

The Appeals Panel shall consist of no less than 3 persons who have not been directly involved in the matter in dispute, and who will not knowingly be materially or directly affected by any decision made or to be made in the dispute. A majority of the members shall be acceptable to the appellant and a majority of the members shall be acceptable to the respondent. The panel shall elect its Chairman.

12.4.5 Conduct of Hearing.

The appellant should be present at the hearing. However, if circumstances should prohibit his appearance, the appellant shall designate a representative to appear on his behalf or submit sufficient written documentation to allow the appeals panel to knowledgeably evaluate the appeal and reach a decision. The appellant has the burden of demonstrating adverse effects, improper actions/inactions, and the efficacy of requested remedial action. The respondent has the burden of demonstrating that the Committee and the Secretariat took all actions required by the Committee procedures, in accord therewith, and that the requested remedial action would be ineffective or detrimental. Each party may adduce other pertinent arguments, and members of the Appeal Panel may address questions to individuals. Robert's Rules of Order (latest edition) shall apply to questions of parliamentary procedure for the hearing not covered herein.

12.5 Decision.

The Appeals Panel, whether following the basic (11.3) or formal (11.4) appeals process, shall render its decision in writing within 6 weeks, stating findings of fact and conclusions, with reasons therefore, based on a preponderance of the evidence. Consideration may be given to the following positions, among others, in formulating the decision:

- a. Finding for the appellant, remanding the action to the Committee or the Secretariat with a specific statement of the issues and facts in regard to which fair and equitable action was not taken;
- b. Finding for the respondent, with a specific statement of the facts that demonstrate fair and equitable treatment of the appellant and his objections; or
- c. Finding that new, substantive evidence has been introduced, remanding the entire action to the Committee or the Secretariat for appropriate reconsideration.

12.6 Further Appeal.

If the appellant gives notice that further appeal to ANSI is intended, the record of the complaint, response, hearing, and decision shall be submitted by the Secretariat to ANSI upon request by ANSI.

13.0 INTERPRETATIONS PROCEDURES.

The Committee shall interpret the standards under its jurisdiction in accordance with its Interpretations Procedures.

14.0 PARLIAMENTARY AUTHORITY

On questions of parliamentary procedure not covered in these procedures, Robert's Rules of Order (latest edition) shall apply.

APPENDIX A

Definitions of Membership Categories for Technical Advisory Groups (TAG) See 5.2.3 and 6.2.3).

(This Appendix is informative and is not part of the official procedures.)

Gas Supplier, Natural: this category shall include those who are predominantly involved in the distribution of natural gas for the subject product(s).

Gas Supplier, LP-Gases: this category shall include those who are predominantly involved in the distribution of LP-gas for the subject product(s).

Equipment Manufacturer: this category shall include those who are predominantly involved in production (i.e. manufacture) of the subject product(s).

Auxiliary Equipment Manufacturer: this category shall include those who are predominantly involved in production (i.e. manufacture) of component parts used on or with the subject product(s).

Regulatory/Code Authority: this category shall include those who are predominantly involved in regulating the use of the subject product(s).

Equipment Seller, Installer or Service Contractor: this category shall include those who are predominantly involved in promotion, distribution and installation of the subject product(s).

Consumer/User: this category shall include those who are not involved in any way in the production and/or distribution of the subject product(s), and who are predominantly representing consumer interests or end users of the subject product(s).

Independent Expert: this category shall include those who have demonstrated technical or scientific knowledge on the subject product(s) or in the field of standards development, but who are not associated with production, distribution, direct use, or regulation of the subject product(s), materials or services.

APPENDIX B

REVISED GUIDELINES FOR FORMAL PRESENTATIONS TO SUBCOMMITTEES

GUIDELINES FOR FORMAL PRESENTATIONS TO SUBCOMMITTEES

ACCREDITED STANDARDS COMMITTEE Z21/83

1. As a general rule, only members of joint subcommittees may make formal presentations at subcommittee meetings. Formal presentations are defined as presentations developed prior to a particular meeting for the express purpose of conveying information of direct and material relevance to the normal scope of the subcommittee, and preferably to the prescribed agenda for a particular meeting. They shall be limited in time, as deemed appropriate by the responsible subcommittee chair.

2. For subcommittee members, permission to make formal presentations should be obtained from the Administrative Secretary and/or the subcommittee chair prior to a particular meeting, preferably in writing, and before the initial agenda is circulated to the subcommittee members, but in any event, at least two weeks (14 calendar days) before the meeting.

The request for, and the granting of permission for a formal presentation can be done verbally or through the appropriate secretariat staff liaison, with the subcommittee chair's approval. The chair should make the facts concerning the request a matter of record at the time of the meeting and direct the secretariat staff to record those facts in the minutes of the meeting.

3. When non-subcommittee members request permission to make a formal presentation at a subcommittee meeting, such persons should be notified by the secretariat staff that they must make a written request to the Administrative Secretary at least thirty (30) calendar days before the particular subcommittee meeting where they wish to make their presentation.

The request should explain who they are or represent, the purpose of the request, the nature of the proposed presentation, and the time they would require to make the presentation (apart from any question and answer period which may be expected to follow). The requestor should explain how and why the proposed presentation would be constructively advance the work of the subcommittee.

Whether or not permission to make a formal presentation by a non-subcommittee member is granted by the Administrative Secretary and/or subcommittee chair, the requestor shall be notified in writing of the fact no later than the expiration of the thirty (30) day period by the Administrative Secretary.

The Administrative Secretary shall provide any relevant instructions or explanation and copy the subcommittee chair and chair of the appropriate parent committee. In addition, whether or not the request for a formal presentation by a non-subcommittee member is granted, the written expression of same, together with the written granting or refusal of the request, shall be incorporated in the minutes of the particular meeting at which the requestor desires to make a presentation.

4. The subcommittee chair has the sole responsibility and authority to control the manner in which a formal presentation is made. It is at his or her discretion to provide for a question and answer period following the presentation, as well as determining the appropriate time for termination of the presentation and discussion. The secretariat staff should record the essence of the presentation and discussion, but need not record the entire proceedings. NOTE: When a formal presentation is made, verbatim transcriptions made by tape recorders, stenotype machines, video camera, or other means, shall not be permitted unless authorized by the chairman.

ADDITIONAL INFORMATION

Since meetings of joint subcommittees are open to the public, persons other than members of the subcommittee, e.g., members of the respective parent committee, invited guests, and others having direct and material interest in the subjects which the subcommittee intends to discuss at a stated meeting, are welcome to attend and audit the proceedings. They are also welcome to ask questions and make comments during the meeting, but only after being recognized by the subcommittee chair.

Such questions or comments raised during the course of discussion at a subcommittee meeting shall not be deemed "Formal" presentations as defined in item 1. Questions and comments shall be limited to remarks intended to add to the knowledge of the subcommittee members concerning the subjects under discussion, including any opinions which the person speaking may care to offer. NOTE: When questions and comments are made, verbatim transcriptions made by tape recorders, stenotype machines, video camera, or other means, shall not be permitted unless authorized by the chairman.

APPENDIX C

LIST OF AWARDEES FOR THE ANNUAL 2002 Z21/83 COMMITTEE AWARDS PROGRAM

5-YEAR AWARDS

Committee/Subcommittee	Member-Last	Members-First	Year Started	Years Served
Auto Gas Controls	SCHEELE	VICTOR F.	1996	5
Construction Heaters	NEUFELDT	DENNIS	1996	5
Construction Heaters	TOMLINSON	JOHN	1996	5
Heavy Duty Heaters	DIRKES II	JAMES V.	1996	5
Manual Valves	MELIA	ED	1995	6
Manual Valves	MOORE	ROBERT	1993	8
Manual Valves	RADEY	DONALD	1995	6
Outdoor Cooking	LOVE	GREG	1996	5
Ranges	BAYNHAM	JAMES	1996	5
Refrigerators and Camping	PERKINS	DON	1996	5
Refrigerators and Camping	WEIGAND	REX	1996	5
Relief Valves	HAAG, Jr.	WILBUR L.	1996	5
Vented Heaters	HAWKINSON	ERIC	1996	5
Vented + Unvented	RICHARDSON	STEPHEN F.	1996	5
Water Heaters	SHELLENBERGER	TIM	1996	5
Z21/83 + Furnaces	WILBER	MATTHEW W.	1996	5

10-YEAR AWARDS

Committee/Subcommittee	Member-Last	Members-First	Year Started	Years Served
Decorative + Vented	CAVENS	BARRY	1991	10
Food Service Equipment	SCHWALLIE	GORDON	1991	10
Furnaces	EDGAR	GLEN	1991	10
Furnaces	HOOKER	GLENN	1991	10
Furnaces	HWANG	KYU S.	1991	10
Outdoor Cooking	CHILDERS	CHRISTOPER	1991	10
Outdoor Cooking	MELL	RONALD E.	1991	10
Vented + Unvented	SIMPSON	GERALD D.	1991	10
Water Heaters	HARRIGILL	WILLIAM T.	1991	10
Water + Vented Heaters	JACKLICH	JOHN	1991	10
WH + Unvent/Vent/Air/Z21	FRAZIER	RONNIE RAY	1991	10
WH + Z21/83	ADAMS	CHARLES	1988	13
Z21/83 Committee	CANCLINI	DANIEL	1991	10

15-YEAR AWARDS

Committee/Subcommittee	Member-Last	Members-First	Year Started	Years Served
Construction Heaters	FLOYD, JR.	FRANKLIN B.	1986	15
Furnaces	CLEVELAND	D. BRUCE	1986	15
HDH + Air & Lg. Boilers	DOUGHERTY	DAVID A.	1986	15
HDH + Z21&CAC&Infrared	MATTSON	NORMAN E.	1986	15
HDH + Z21&CAC	POTTER	GARY J.	1986	15
Ranges	VALLE	MIKE A.	1986	15
Z21/83 & CAC	SWITZER	DONALD W.	1986	15

20-YEAR AWARDS

Committee/Subcommittee	Member-Last	Members-First	Year Started	Years Served
Z21/83 & CAC (prev. Furn)	MULLEN	JAMES	1981	20

SPECIAL AWARDS

Recognition for:	Last	First	Year Started	Years Served
Auto Gas Controls	SCHLACHTER	HERBERT	1978	23
Z21/83 Program	STANONIK	FRANK A.		